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A Monthly Journal of Medicine, Surgery, and the Collateral Sciences

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The Need for Periodic Medical Examinations

EDWARD H. MARSH, M.D.,

ASSISTANT PROFESSOR OF PREVENTIVE MEDICINE IN THE LONG ISLAND COLLEGE HOSPITAL,
New York

As a result of public health work there has been a marked decrease in the general mortality rate over a long period of years. This has been due in large part to the lowering of infant mortality and to the lowered mortality in certain specific communicable diseases, typhoid fever, tuberculosis, and intestinal disease in children in particular.

The future of preventive medicine and public health must look to another field, namely, the lessening of mortality in the so-called degenerative diseases of adult life.

¹ From 1900 to 1911 the general mortality rate for males in the registration area of the U. S. for 1900 decreased for each age period under 44 and increased for each period beyond that. For females the decrease was in all age periods under 54. Above that there was an increase.

Attention is directed to Table I.

TABLE I.
COMPARISON OF MORTALITY OF MALES AND FEMALES BY AGE GROUPS

Age	Males			Females		
	1900	1911	% Increase or Decrease	1900	1911	% Increase or Decrease
Under 5	54.2	30.8	-26.57	45.8	38.3	-27.29
5-9	4.7	3.4	-27.66	4.6	3.1	-32.61
10-14	2.9	2.4	-17.24	3.1	2.1	-32.26
15-19	4.9	3.7	-24.49	4.8	3.3	-31.25
20-24	7.0	5.3	-24.29	6.7	4.7	-29.85
25-34	8.3	6.7	-19.28	8.2	6.0	-26.83
35-44	10.8	10.4	-3.70	9.8	8.3	-15.31
45-54	15.8	16.1	+1.90	14.2	12.9	-9.15
55-64	28.9	30.9	+6.92	25.8	26.0	+0.79
65-74	59.6	61.6	+3.36	53.8	55.1	+2.42
75 and over	146.1	147.4	+0.89	139.5	139.2	-0.22
All ages	17.6	15.8	-10.23	16.5	14.0	-15.15

During this time the mortality rate for cancer increased 30.6 per cent., of diabetes 60 per cent., of cerebral hemorrhage and apoplexy 18.8 per cent., of organic disease of the heart 39.3 per cent., disease of the arteries 396.2 per cent., cirrhosis of the liver 14.3 per cent., Bright's disease 18.1 per cent., making an average increase of 38 per cent. for this group of diseases.

This is shown in Table II.

TABLE II.
DEATH RATE PER 100,000 OF POPULATION FOR CERTAIN CAUSES OF DEATH

Male and Female Combined			
(In Registration States as Constituted in 1900)			
Cause of Death	1900	1910	Percent Increase
1. Cancer (all forms)	63.5	83.9	30.6
2. Diabetes	11.0	17.6	60.0
3. Cerebral hemorrhage and apoplexy.....	72.5	86.1	18.6
4. Organic diseases of the heart.....	116.0	161.6	39.3
5. Diseases of arteries.....	5.2	25.8	396.2
6. Cirrhosis of liver	12.6	14.4	14.3
7. Bright's disease	81.0	95.7	18.1
Total	361.8	484.1	33.8

According to Dublin² the death rate for organic heart disease is not only a serious problem in the older age groups, but is also serious at the younger ages. He states that under 25 the rate is as high as that of typhoid fever, from 25 to 34 it is as high as that of lobar pneumonia; from 35 to 44 it is higher than that of Bright's Disease, and above 45 it is higher than any other cause of death.

Although the general death rate in New York State has been decreasing steadily for years, there has been a steady increase in the combined rates for certain diseases, namely cancer, cerebral hemorrhage and apoplexy, heart disease and endocarditis, arterio sclerosis, nephritis and Bright's Disease.

In 1911 the combined mortality rate for these diseases was 526.6 per 100,000 in New York State exclusive of New York City. In 1920 the rate was 626.7, an increase of 20 per cent. or 100 in each 100,000 of the population. Moreover, this has been a steady increase except for the years 1918 and 1919, when the pandemic of influenza occurred and undoubtedly a large number of persons died of influenza who otherwise would have died of one of these diseases. Not only has the death rate itself increased but the ratio of deaths from these causes to all causes has increased almost 25 per cent. In 1911, 32.8 per cent. of all deaths were due to one of the above group of diseases; in 1920, 42.1 per cent. were from these causes, a steady increase in percentage in every year except 1918.

This is shown in the following table.

TABLE III
GENERAL MORTALITY RATE PER 100,000 OF POPULATION AND
SPECIFIC MORTALITY RATES FROM CERTAIN
DISEASES* PER 100,000 POPULATION
N. Y. State Exclusive of N. Y. City—1911-1920

	General Mortality Rate per 100,000	Specific Mortality Rate per 100,000	Ratio of Specific to General
1911	1,602.5	526.6	32.8%
1912	1,561.5	535.3	34.2%
1913	1,591.3	544.6	34.2%
1914	1,560.8	606.0	38.8%
1915	1,546.6	616.7	39.8%
1916	1,598.1	633.5	39.6%
1917	1,622.2	653.0	40.3%
1918	2,004.0	638.4	31.8%
1919	1,453.9	594.9	40.9%
1920	1,487.8	626.7	42.1%

*Cancer
Cerebral hemorrhage and apoplexy
Heart disease and endocarditis
Arterio sclerosis
Nephritis and Bright's disease

Some years ago the Metropolitan Life Insurance Company made seven health surveys involving a total population of 517,757 among the families of insured persons.⁴ In the surveys the morbidity rates for certain diseases were as follows:

Pulmonary tuberculosis	74.6 per 100,000
Rheumatism	164.4 " "
Cancer	15 " "
Cerebral hemorrhage, apoplexy, paralysis	65.8 " "
Organic heart disease	62.6 " "
Other circulatory diseases	18 " "
Diseases of the kidneys and adnexa	38.3 " "
Diseases of the stomach except cancer	67.7 " "

making a total of 506.4 per 100,000 of the population sick and disabled as a result of one of these diseases at the times during which the surveys were made.

The total sick and disabled of the individual surveys varied from a minimum of 377.8 per 100,000 among the white population in Pennsylvania cities to 785.3 among the negro population in North Carolina.

In this connection consider table IV.

TABLE IV
SUMMARY OF SEVEN SICKNESS SURVEYS—METROPOLITAN
LIFE INSURANCE CO.—1915-1917

Total Population—517,757
Rate per 100,000 of those sick and disabled

Disease	All Surveys	Roch.	Boston	Pa. White	W. Va. White	W. Va. Negro	Pa. & W. Va. White	N. C. White	N. C. Negro
Pul. th.	74.6	107.3	84.3	54.2	82.4	84.9	84.9	93.2	93.2
Rheumatism ..	164.4	211.7	179.9	127.9	232.7	246.5	262.4	235.1	235.1
Cancer	15.0	29.0	18.5	12.7	14.5	20.2	9.2	17.7	17.7
Cerebral hem., apoplexy and paralysis ...	65.8	98.6	83.3	45.1	75.2	56.6	73.6	109.7	109.7
Organ. heart disease	62.6	81.2	93.6	45.1	106.7	60.6	59.8	66.6	66.6
Other circu- latory dis. ...	18.0	20.3	36.0	12.0	24.2	8.1	20.7	13.3	13.3
Dis. of kidneys and adnexa...	38.3	52.2	38.0	28.0	65.5	40.4	50.6	71.0	71.0
Dis. of stomach except cancer	67.7	84.1	74.0	51.9	109.1	68.7	101.2	88.7	88.7
Total	506.4	684.4	605.6	377.8	710.3	586.0	602.4	785.3	785.3

It was also found that of those sick and disabled 28.1 per cent. had been ill for one year or more; 6.3 per cent. for more than six months and less than one year; 24.7 per cent. for more than one month and less than six months; 40.9 per cent. for less than one month.

Table V shows the above.

TABLE V
SUMMARY OF SEVEN SICKNESS SURVEYS SHOWING DURATION
OF SICKNESS—1915-1917

Of those unable to work. (Metropolitan Life Ins. Co.)

	All Surveys	Roch.	Boston	Pa. Cities White	W. Va. White	Pa. & W. Va. C & W	N. C. W & C
Less than 1 mo.	40.9	24.5	27.6	44.3	50.0	47.3	42.3
More than 1 mo. and less than 6 mos.	24.7	18.2	22.2	26.0	26.3	27.3	24.7
More than 6 mos. and less than 1 yr.	6.3	9.2	9.0	5.1	5.2	5.7	6.3
1 yr. or more	28.1	50.1	41.3	24.7	18.5	19.2	26.2

In Boston the survey included 97,259 persons in 20,497 families, about 13 per cent. of the total estimated population of the Greater City in 1916, the year of the survey. The sickness rate was 19.6 per 1,000. About 91.9 per cent. were disabled for work. Although the sickness rate was 19.6 per 1,000, for the entire group, at the age of 35 or over the sickness rate was 35.7 per 1,000.

At the request of the Thomas Thompson Trust the State Charities Aid Association made a sickness survey in certain districts of Dutchess County, N. Y., covering the year 1912 and part of 1913. The table showing the morbidity rates for certain diseases is appended, and it will be noted that for the whole district covered 16 per cent. of the illness discovered was due to one of the chronic diseases discoverable, preventable or postponable, through periodic examination; the ratio varied from 14 per cent. in Rhinebeck Town to 22 per cent. in Milan Town.

TABLE VI
ANNUAL MORBIDITY RATES IN DUTCHESS COUNTY, NEW YORK
(Data from Survey in 1912 made by State Charities Aid Association)

	P'keepsie 4th Ward	Rhinebeck	T. Milan	T. Clinton	T. Stanford	T. Whole District						
Population....	4,580	3,532	893	1,278	1,520	11,803						
Sick	Rate per 100,000	Sick	Rate per 100,000	Sick	Rate per 100,000	Sick	Rate per 100,000					
Total sick....	355	7,751	533	18,091	77	8,611	62	4,851	67	4,408	1,094	9,260
Pulmonary tuberculosis	10	218	8	226	3	336	2	156	1	66	34	205
Cancer	11	240	8	142	6	468	1	66	1	66	23	195
Rheumatism ..	9	197	23	708	6	672	2	156	2	132	44	373
Diabetes.....	4	87	3	85	—	—	—	—	—	—	7	39
Cerebral hemorrhage & apoplexy	3	66	3	85	2	224	—	—	2	132	10	85
Dis. of heart & arteries...	13	284	12	340	—	—	2	156	2	132	29	246
Dis. of stomach	8	175	12	340	3	336	1	78	4	264	28	237
Nephritis, acute and chronic.....	6	171	7	175	3	376	—	—	1	66	18	153
Total.....	64	1,338	78	2,124	17	1,904	13	1,014	13	885	183	1,551
%.....	18.0	14.2	22.0	22.0	20.0	19.4	18.7					

Dr. Oscar H. Rogers⁵ of the New York Life Insurance Company, states that individuals with mitral regurgitation without hypertrophy show an excess mortality of 65 per cent. above the normal, similar cases with hypertrophy an excess of 105 per cent. and cases of mitral regurgitation with history or rheumatism an excess of 200 per cent. above the normal.

⁶From medico-actuarial studies of two million insured lives in this country, persons who have suffered with gout show an excess mortality of 90 per cent. within five years; those with rapid pulse (90-100) and no other assignable cause, an excess of 72 per cent.; those with rapid pulse of 100 or more an excess of 105 per cent. At the age of 45, persons 50 pounds over weight, show an excess of 50 per cent. mortality.

⁷Dr. J. W. Fisher reports an excess mortality of 9 per cent. among insured lives with an average blood pressure of 141; 63 per cent. excess mortality among those with a pressure of 152, and 236 per cent. excess mortality among those with a pressure of 171.

The above is the situation which must be met and the only means of solution is by the prompt discovery of these conditions at the earliest possible moment.

ment. This means periodic physical examinations beginning in childhood.

In making a physical examination to determine the presence or absence of health we must have some standard of health. Fisk gives essentially the following as a standard for physical sufficiency: "It must not be a mean physical state as determined from analyses of existing population but rather a standard derived from a consideration of the physical state to which the human body can be brought by reasonable attention to its care and training." Good posture, well-developed but not over-developed musculature, blood constituents within normal range, freedom from head infection, teeth, nasal cavities, tonsils and middle ear normal and free from infection, freedom from intestinal stasis and structurally normal.

What will be found with periodic medical examination can be assumed from studies of the existing figures. The Committee of Ministry of National Service in Great Britain in their report covering an examination of 2,425,184 men of ages 18 to 42, during 1917 and 1918, gave the following: 36 per cent. were placed in Grade 1 (physically fit); between 22 and 23 per cent. were in Grade 2 and were judged capable of undergoing such physical exercise as does not involve severe strain. Between 31 and 32 per cent. were in Grade 3, with marked physical disabilities, and 10 per cent. were in Grade 4 and were totally and permanently unfit for any form of military service. At 40 years of age the rejection rate was 69 per cent. as compared with 22 per cent. at the age of 18. In our own draft about 30 per cent. of the men were rejected for one or another cause at the first physical examination by draft boards and many more were rejected upon a second examination at cantonments. For instance, 62,000 men were rejected by draft boards on account of tuberculosis, and 25,000 additional were sent back for tuberculosis upon subsequent examinations at camp. The rejection rate between the ages of 21 and 31 was 30 per cent. higher than the rate at 21 years of age.

The Metropolitan Life Insurance Company some years ago inaugurated a plan for a periodic examination of all employees and now has in its employ 150 men and women, all of whom upon such examination were found to have tuberculosis and all of whom after treatment in sanatoria are again working for the company.

The Life Extension Institute states that in 1,500 routine X-ray examinations of the chest, 17 per cent. were found to have enlarged hearts; 4 per cent. were found to have active tuberculosis and 5 per cent. had changes in blood vessels. Of 4,100 consecutive cases with routine X-ray examinations of the teeth, only 76 were found normal; 58 per cent. of the individuals examined showed root abscesses and when followed up within six months, 50 per cent. of those who had acted upon this information and had had proper attention to their mouths showed definite improvement in general health. Of supposedly healthy people engaged in work, the Life Extension Institute has found 16 per cent. with cardiac impairment; 12 per cent. with combined heart, blood vessel and kidney changes; 25 per cent. with well-marked arterial changes and 26 per cent. with blood pressure changes of importance. From 10 to 12 per cent. of those examined and whom it was necessary to refer to physicians were previously unaware of their condition.

The Committee on the Elimination of Waste in Industry of the Federated American Engineering Societies, of which Herbert Hoover is president, re-

ported that the economic loss in this country annually from preventable diseases and death is more than three billion dollars. The economic loss from the tuberculosis death rate alone is half a billion dollars; and they figure the loss in this generation from tuberculosis, figured on diminished longevity, will be 26 billion dollars. Five hundred thousand working people die annually. At least half of this loss is prevented or postponed by proper medical supervision and periodic medical examination, health education and community hygiene. At least 25 million people in the working classes have defective teeth and mouth infection. There are more than one million with some form of tuberculosis and more than six million with organic disease resulting mostly from infection.

That periodic medical examination has an effect upon mortality is shown by the results of an experiment that the Metropolitan Life Insurance Company made. From February, 1914, to July, 1921, they offered periodic medical examinations with appropriate advice to policy holders. There were 5,987 males who took advantage of this during the first two years and the mortality in this group has been studied carefully for a subsequent five-year period, the findings being compared with the expected mortality according to standard life tables. In the whole group there were actually 217 deaths during this period, whereas according to the American Men (Ultimate) Table there should have been 303 deaths. In other words, the actual mortality was only 72 per cent. of the expected. This lessened mortality is shown in all age groups except that of 70 and over.

TABLE VII
RATIO OF ACTUAL DEATHS TO EXPECTED DEATHS ACCORDING TO AMERICAN MEN (ULTIMATE) TABLE, BY AGE GROUPS, AMONG 5,987 MEN GIVEN PERIODIC PHYSICAL EXAMINATIONS BY METROPOLITAN LIFE INSURANCE COMPANY—1914-1920

Attained Age	Per Cent Actual Claims to Probable
Under 30	88
30-39	96
40-49	78
50-59	63
60-69	97
70 and over	101

For more detailed study, the total group was divided into four groups, Group 1, containing 1,620 persons or 27 per cent. of the total, were preferred risks. There were 34 deaths, this mortality being 47 per cent. of the expected, according to the American Men (Ultimate) Table.

Group 2 contained 1,269 persons or 21 per cent. who were ordinary risks, that is, those excluded from \$5,000 whole life policies. There were 44 deaths in this group, a mortality of 72 per cent. of the expected.

Group 3 contained 1,728 persons or 29 per cent. of the total and was made up of those who had no serious organic derangement but had shown albuminuria from a slight trace to a large trace, and were rated as sub-standard risks. In this group there were 38 actual deaths and the mortality was only 46 per cent. of the expected; virtually the same mortality as in Group 1 or the preferred risks. It must be noted, however, that the finding of albumin was based on one examination only, and undoubtedly included not only permanent cases of albuminuria but cases of intermittent, temporary or accidental albuminuria.

Group 4 contained 1,370 persons or 23 per cent. of the total, who would ordinarily be rejected for life insurance. The group included cases of high blood pressure, organic heart, pulmonary and other organic disease. In this group there were 101 deaths or 117 per cent. of the expected mortality.

(Concluded on page 275)

Medical Aspects of the Workmen's Compensation Law

HENRY D. SAYER,

THE INDUSTRIAL COMMISSIONER OF THE STATE OF NEW YORK.

New York

One of the least known and understood, and yet the most beneficial statutes passed in many years, is the Workmen's Compensation Law. It is little understood by the legal profession for it discourages litigation and has but small use for the trained attorney. The old liability laws, with their court procedure and the open forum for legal battles, invited the lawyers in. There they disputed much over such terms as negligence, contributory negligence, risk of the employment, negligence of the fellow servant and the like, while juries were harangued about damages, loss of services, pain and suffering and the like. Controversy was the most distinguishing characteristic of the old system and the legal aspect was the most prominent aspect of those laws.

This has been changed under the Workmen's Compensation Law. Loss of earnings without regard to fault, but predicated only upon an injury arising out of and in the course of the employment, is the measure of money benefits to the injured workman, and the crowning glory of that law is the provision for medical care and treatment of those injured, at the expense of the employer. The legal aspect of the old system must give way to the medical aspects of the new. The importance of the lawyer must yield before the ever increasing importance of the physician in this system of industrial and economic justice. The physician is indispensable to successful compensation administration, their profession has assumed or has had thrust upon it great responsibility. It is indicative of a growing sense of responsibility that the organized bodies of physicians are devoting more time to consideration of the subject and the physician's duties and opportunities in relation to it.

What are some of the medical aspects of the Compensation Law? The one with which the administrative officer is first brought in contact is the relation of the physician to the proof of claims. To the physician no doubt this is the most annoying aspect, for the busy practitioner has little time and still less inclination to come before the department on the hearing of a claim. Not always, by no means very often, is the physician called for a hearing. Last year we made awards in sixty thousand cases and held upwards of one hundred thousand hearings. I should say that in three-quarters of those hearings no doctor was called other than those regularly employed by the department or those retained by the insurance carriers. Many cases, very many cases, are disposed of, so far as the medical aspect of the case goes, upon the signed reports of the physician. The amputation of the terminal phalanx of a finger, for example, is easily described on a written report and is verified by the observation of the presiding officer or the department's physician.

Very important is it, therefore, that physicians' reports should be accurate, full and complete. I have in mind a case that came before me in which complications arose and it became necessary to bring in three doctors, two eye specialists and the first attending physician, all because the physician made a report in which he made a mistake as to which eye was injured.

The physician is apt to regard his certificate of disability for an injured workman as being a good deal like the certificate he gives that a person is ill and cannot attend to some duty. They were for the most part

statements of conclusions, rather than details of facts upon which someone else can form an opinion. This, of course, will not do in the consideration of compensation claims. The Department must have the facts fully set forth, for if an award of compensation is based upon insufficient evidence, the courts will promptly reverse and set it aside.

The physician must help us to know what the injury was and how the happening was described to him by his patient, what is the present condition and extent of disability, whether the condition is one that could have resulted from such an accident, whether previous disease has contributed to the condition, or whether a pre-existing disease has been aggravated or exacerbated by the injury, and lastly the physician's opinion as to the duration of disability, both from a surgical and from a vocational viewpoint.

To give all this information and to give it accurately it is necessary that the physician keep proper records. I venture to suggest that it is the duty, and a most important duty, of every physician undertaking the treatment of a person injured while at work, to keep a full and complete record of his observations. To many of you it may seem superfluous to suggest the keeping of records, for I know that most of you do keep excellent records. But it would be most surprising to you to know how many physicians keep no records of cases at all, but trust to memory and the appearance of the injured part to refresh their recollection.

How often the record of observations made at the time of examination has proved of greatest value in the subsequent consideration of a claim.

I could go on and cite to you endless cases in my own experience where original records proved to be the evidence upon which the decision turned, and cases in which lack of record has made the decision very difficult and doubtless some in which awards have been denied because of such failure.

A class of case that is often very troublesome is that where a person dies from a heart lesion at some time more or less remote from some accidental injury. It will be argued that the shock and trauma contributed to decompensate a diseased heart which previously had good compensation. You can readily appreciate how much weight the trial referee and the courts would attach to trained observations and record of symptoms and conditions immediately following the accident and for a period of time thereafter.

We have many cases where an injury activates an inactive or dormant constitutional condition, such as tuberculosis. If it can be established that the accident lighted up such a condition and thereby caused death, an award of death benefits should follow. Medical observations are most important here. Were any symptoms of disease present at the time of the first visit, or did the physician obtain a history of disease prior to the accident, when did the first symptoms of the disease begin to make their appearance? These are all questions of the utmost importance to the referee.

I recall a case that came before me. The patient had sustained a dislocation of the shoulder. It did not improve much but was very puzzling to us all. I had him observed at a hospital and a group examination made. I had a report in detail of the heart and lungs, blood, spinal fluid, x-ray, orthopedic, neurological, etc.

*Address before the Society of Medical Jurisprudence, March 13th, 1922.

We had a positive Wassermann, and the diagnosis was Charcot joint. Lungs were negative. Before the man could appear before me again, he died very suddenly and without warning. The medical examiner of the city was called and gave a death certificate that the man died of tuberculosis of three years' duration following injury to the shoulder. That certificate was given after examination of the body, without autopsy, and evidently on the hearsay of the wife. Without the very careful and detailed reports made to me shortly before there would have been great difficulty in combatting the death certificate. There can be no question, therefore, of the importance of the physician's records and his reports. They are absolutely indispensable to a proper administration of the law.

The physician should not regard it as an imposition when he is called as a witness in a compensation claim. It does not occur so frequently as to become a burden ordinarily, and the physician should appreciate that in very large part the rights and liabilities of the parties are in his keeping. Not needing a lawyer to aid him in securing his rights, the workman is absolutely dependent upon the observation and opinion of his attending physician. One of the ever-recurring difficult questions we have to decide is whether a condition found by us is a sequence of the original accident or whether death was the result of such an injury. The determination of this question largely turns upon proper diagnosis. Often a mere certificate will not suffice. The physician's early judgment may be greatly influenced by further information. I have seen doctors change their diagnosis upon learning on the hearing of a case of facts unknown to them, possibly of autopsy findings, often of x-ray plates, serological and other tests. With their own clinical observations in mind and with such additional information a doubtful diagnosis may be made clear, or a very positive opinion may be changed to one of doubt.

(Examples: mesenteric abscess, abscess of liver following appendicitis, diabetes after infection of finger, dementia præcox or general paresis.)

To you the case is only one of many in the day's work, but to the injured workman or his widow and children it is the one big and all important thing. The law gives them certain rights and remedies upon proof of their rights. Let it never be said that those rights could not be established because of unwillingness or lack of interest on the part of the physician.

While we have said much of the subject of physicians' duties, perhaps a word may not be amiss on the subject of physician's rights or what he conceives to be his rights. One of the most troublesome questions that has arisen under the Workmen's Compensation Laws not only in this state but in other states is the so-called free selection of physicians. In theory it cannot be disputed that an injured workman is entitled to be treated by a physician of his own selection and choice. As a matter of fact, the law does not infringe in the slightest degree upon the right of the workman to select his own doctor. He may choose whom he will and it cannot affect his compensation. His right of selection is only affected when he expects his employer to pay for the doctor's services.

Section 13 of the Workmen's Compensation Law provides that the employer shall promptly furnish to his injured employee such medical treatment as the nature of the injury may require, that if the employer fail to provide the same after the request by the injured employee, the injured employee may do so at the expense of the employer, but that the injured employee shall not be entitled to recover any amount expended by him for

such purpose unless he shall have requested the employer to furnish the same and the employer shall have refused or neglected to do so. It further provides that all fees and other charges for treatment and services shall be subject to regulation by the Industrial Board and shall be limited to such charges as prevail in the same community for similar treatment of injured persons of a like standard of living. It is claimed and with some appearance of fairness that if the employer is to be charged with the expense of medical treatment he shall have something to say with regard to the physician who is employed to render services. It has been contended that in many cases the employer is far better able to furnish a competent physician than is the injured workman who makes such selection for himself. Not only is the employer interested in the physician because of having to pay the physician's bill, but he is interested to see that the workman has competent care. Incompetent care and unskillful treatment are apt and do actually cause employers to pay much larger amounts in compensation benefits. If a laceration of the hand can be treated so as to heal without infection, it is vastly cheaper for the employer than to pay for the loss of a hand should a bad infection develop and result in a claw hand, and if this result is an important saving in money to the employer, how much greater a benefit is it to the workman who gets a good result and does not have to go through life with a deformity?

Now, when we consider the selection of physicians we do not have in mind so much the average competent, honest practitioner. We must make rules to protect against the worst element rather than for the honest man. Within a week there came to my desk a bill submitted by a physician for 84 visits in 14 days and thereafter one visit a day until the limit of 60 days was reached, in a case where the patient suffered only bruises and contusions, and, according to the physician's own statement, who did not see the patient again after the sixtieth day. I do not blame the employer or the insurance company who must pay the bills rendered against the employer for contesting to the last degree on technical or other grounds such a bill as that. This is not an isolated case. Unfortunately, such cases are all too common.

I have sometimes wondered why it is that the mere mention of the Workmen's Compensation Law to the average physician is provocative of discussion and criticism of the law. My observation has led me to the conclusion that the greatest source of irritation that arises under the Compensation Law is in connection with the physician in general practice who occasionally has a compensation case come into his hands, possibly an old patient, and who, after a few days of treatment receives a none too nicely worded letter from the insurance company informing him that he is no longer to treat the patient and that he will not be paid for any services beyond that date and, at the same time, the workman receives instructions that he is to accept the services of the physician furnished him by the insurance company. This practice I most heartily condemn. Where a competent doctor is ruthlessly displaced in favor of the physician no more competent himself, but who happens to be in the employ or designated by an insurance company, it seems to proceed on the theory erroneously spelled into the law that the provisions of the law obligating the employer to furnish competent medical attention really mean that the insurance company has the privilege of directing such medical work into the hands of a favored few.

In an effort to get at the facts and to seek, if possible, a solution of the medical difficulties of this state, I

appointed some months ago a committee on medical questions. This committee was composed of representatives of the stock and mutual insurance companies, State Insurance Fund, self-insured employers, the State Federation of Labor, State Manufacturers' Association and four medical men. In selecting the medical men I desired to obtain representation from different classes of physicians who were concerned with the law. Accordingly, one was an insurance company doctor in charge of the medical department of one of the larger companies, namely, Dr. A. R. Tilton; another was the president of the State Medical Society, Dr. James A. Rooney, who by proxy was represented by Dr. Eden V. Delphey; a third was a representative of the great class of physicians and surgeons in general practice who have little to do with the Compensation Law ordinarily and from whom the greatest objections lie. For this position I selected Dr. Frank D. Jennings; of Brooklyn, who has since been elected head of the Kings County Medical Society. The fourth doctor was president of the Society of Industrial Medicine of the State, Dr. P. H. Hourigan.

This committee has held numerous meetings and has discussed at great length the various problems concerned in compensation administration. The committee has held a number of public hearings to which were invited representatives of all of the medical societies, all of the hospitals and others and has held such hearings not only in New York, but at the principal industrial centers of the entire state. This committee went on record unanimously in a resolution proposed by the representative of one of the insurance companies that the committee absolutely disapproved the practice of "lifting" cases from one doctor and giving them to another unless there were good reasons for such action and that in no case should a patient be directed from one physician to another except after notice in writing to the Industrial Commissioner of the reasons therefor.

I do not pretend to know whether such action will cure the situation with regard to the so-called lifting of cases. It certainly seems to me if it is lived up to that it will go far toward improving that situation. If an insurance company found a physician making six house calls in one day to a man with bruises and contusions, it would certainly be justified in taking that case and giving it into the hands of a proper and competent man and setting forth its reasons for such action in a written statement to the Commissioner, but if a case gets into the hands of a competent physician whose treatment is adequate and whose charges are reasonable, no valid reason could be assigned justifying the company in lifting that case and giving it into the hands of another. Another thing the committee on medical questions has determined is that no insurance carrier shall arbitrarily reduce a doctor's bill, but shall take the matter up with him for adjustment on a reasonable basis and failing to get to an agreement, the company shall immediately refer the matter to the Industrial Commissioner. We found in the course of our examination of the subject that doctors' bills, when not agreed upon, were allowed to die in the files of the company and unless the physician presented the matter to the Department, we never heard of it. Under the new practice the insurance company will be required to submit any controversy over his bill to the Department for adjustment.

In order to work out some of the difficulties arising and to aid in the adjustment of medical questions, the committee recommended to the commissioner that an advisory committee be appointed before whom all questions of improper practice, either on the part of employers or insurance companies, or on the part of physicians, may be brought for consideration. I have

asked the members of the present committee to continue to serve as members of the advisory committee.

Many of the difficulties arising are relatively unimportant, but in the aggregate they have a tremendous effect upon the administration of the law and its application. The committee recommended that the 60 day limitation of medical services be entirely eliminated, but in doing so it also recommended that the statute be amended to require the physician to report to the employer the fact of his treating a patient and of his condition. I do not believe if such a law is passed, (and I expect it will be passed), that we will have much difficulty here in New York with physicians not being paid their just bills where they rendered adequate treatment. The problem of the faker we will still have to deal with, but that need not disturb or affect the honest practitioner. There are not many, I am happy to say, but the few there are can make endless trouble not only for the administrative authorities but really for the whole medical practice. I hope the day will come when the medical profession will take steps to do what the legal profession did with the fakers in their ranks. They have accomplished much toward enforcing honest dealing between attorney and client. Is it too much to expect that the medical profession will insist not only upon fair dealing but also upon obtaining honest treatment of injured workmen? When you have done that the glories of the Workmen's Compensation Law will be realized.

The injured workman today not only receives his compensation for his support and maintenance during his days of disability, but he receives far better medical treatment than he ever received prior to the enactment of the Compensation Law. Wonders have been accomplished for reconstruction of injury to members. Industry not only pays for the cost of the damage involved by it, but it pays for repair work and better repair work than industry ever conceived it. The theory today is that it is better to pay for the most skillful medical and surgical care to restore a joint or a member of good function than it is to pay in the nature of damages for a serious injury.

Discussion

Hon. Robert W. Bonyng: The public has very little understanding of the Workman's Compensation Law. While it is of vast importance to the workman, it is also of interest to the general public. The last suggestion Commissioner Sayer made was under the general topic of the rights of the physician. In the early days of the Commission the question was whether the Commission had the authority to pass on the reasonableness of the physician's charges for service to the injured workman, leaving him to collect his bill by court proceedings, but it was later decided that the Commission was entitled to make an award covering those charges. I agree with Commissioner Sayer in reference to the necessity of having a detailed report from the physician as to the accident. I understand that physicians will soon be required to report to employers, by the new law, when they undertake the treatment of an injured workman, and to the Commission. My suggestion would be that he make a report immediately to the Commission; that will be contained in the new law; but in addition he should be required to report when he has finished his treatment, so the commission will have a record of when the treatment commences and when it terminates.

As to whether the employee has the right to select his own physician: Under the existing law, Section 13, the employee, while he may select his own physician, cannot charge the expense of that physician to the employer unless he has made a request of the employer for medical treatment and the employer has refused it. A committee that has been considering this question has recommended that if they find a competent physician is treating the injured employee, the employer is not entitled to the right to make a change in the physician. I very much doubt if that can be accomplished by a resolution of the board and at the same time make the employer liable for the physician's charges. At present the employer is not responsible for the bill of the physician if before he has requested the employer to furnish medical treatment the injured employer has called on his own

physician and he has been treating him before the employer has been notified. When the employee sends word he is injured it seems that the employer has the right to say he stands ready to furnish medical treatment and he cannot be compelled to let the physician continue the treatment and be charged with the expense. The employee cannot continue to receive the treatment of his own physician except he does it at his own expense.

In reference to the importance of a detailed report from the physician: such a detailed report is far more important in the administration of the Workman's Compensation Law than the services of an attorney. The Commission requires the detailed report of the physician because in many cases the Commission has no opportunity to examine the injury if it has resulted in death. In many cases the employee receives his injury and months afterward dies from the results of that injury. He may never have filed a claim for compensation and given no notice of receiving the injury, yet if he dies this would not bar his widow or children's rights to the death benefit if they file a notice within thirty days after the death occurs. Then for the first time, would arise the question, did the injury cause the death? In such a case the Commission is compelled to rely on the testimony of the physician who treated the man, whether the injury aggravated a pre-existing disease. It was a question for a time whether such an employee was entitled to receive compensation. That has been decided by the courts of this State that injury to an employee who is suffering from a pre-existing disease that is aggravated by the accident, or which has lighted up the disease so as to cause death, the employee is entitled to compensation. In that respect the law differs from the old rules that apply in negligence cases, the expectation of life naturally being less where a condition of disease exists.

An employee now who is suffering from a pre-existing disease is entitled to just as much compensation and in some cases more because his disability will last longer than that of a normal man. Also in death cases hastened by the accident he is entitled to receive the full benefit of the Workman's Compensation Law, and it must be borne in mind that the expectation of life is not taken into account. In compensation cases the benefits go to the widow and children, and they are not based on the expectation of life. If there is a widow she gets the benefits during the balance of her life or until she remarries. So if the employee is a man of sixty years of age and he has a young wife and he is killed, the widow receives and continues to receive throughout her life the death benefits, unless she remarries. Unless she remarries she gets the death benefits for the balance of her life, and the children get the benefits up to the age limit. In these cases that result either in death or long disability by reason of the fact that the employee had some disease which was aggravated by the accident, it is not necessary for me to dwell on the great importance of the detailed report, details of the case on first examination and all the conditions that presently followed while the employee was in the hands of his physician. It is very difficult to determine if a pre-existing disease has lighted up, or if the employee would in any event have become incapacitated regardless of the injury. In such cases the Commission must rely on the report of the physician. In those cases where the injury resulted in the disability of a man of weak constitution, very frequently this is continued for a longer period than it would if the injury had occurred to a man in a normal condition. But no distinction is made in those cases.

All the statements discussed by Commissioner Sayer are borne out by the experience of the Commission, and the suggestions that have been made for changes I think meet with universal approval. The attention of the physician is called to the necessity for aiding and assisting the Commission by keeping full and accurate records, which will enable the Commission to perform its duties in a manner satisfactory to the injured employee and to all the people of the State. With the assistance of the physician, the work of the Commission can be made very much lighter.

Mr. Josephson: One of the most objectionable features of the Workman's Compensation Law is the fact that the insurance carrier has the right to select the doctor at all. It is all very well to say that the employee can choose his own physician with the consent of the employer, but in most cases the doctor will be the one selected by the insurance carrier. The Commissioner has said that an attorney's services are not needed because it has to rely on the report of the doctor. If the doctor is selected by the party who is going to pay the compensation, in many cases injustice will be done to the workman who has been injured. I know of a case where a working man was injured and the insurance company's doctor treated him and told him to go back to work, and gave him sixty-four dollars. The man could not work and went back in a week whereupon the doctor said he could do nothing further for him because he had signed a receipt for full compensation. The workman went to a lawyer, who happened to be myself, and I took it up with the insurance company who refused to reopen the matter. Then I went to the Commission and

the details were reviewed and the Commission ordered that the man receive compensation of \$1,100. That man needed a lawyer because he got no justice from the insurance company, nor would he have received it from the Commission without a lawyer to present the facts in the case.

Alfred E. Ommen, Esq.: I was glad to hear that the Commission had not taken the position that in all cases the injured workman should have the right to select his own physician. There are doctors who are willing to insist that the workman is not well and keep on insisting on it so long as the man gets compensation and the doctor gets paid. The suggestion of Commissioner Sayer that his commission of doctors make recommendations may work out well, but there are many doctors in New York who are not competent to treat some injuries to these workmen; there are some kinds of injuries they have never had any experience with, so it is wiser to have the workman go to men who know how to handle the case. The purpose of the law is not just to pay doctors, but to get the workman well, so he can go back to his work and as promptly as possible, and not to encourage malingering. The Commission knows there are many men who are getting compensation because they have some doctor who says they cannot work, while there is very strong reason for suspecting that this is not true. Malingering has been a bad feature of this law in European countries, and it is the desire of the New York officials to have the best men treat these cases, and this is accomplished by selecting physicians who do not know the patients and who are therefore impersonal.

Dr. Eden V. Delphey: I quite agree with the speaker that the medical service is the lasting glory of the Workman's Compensation Law. For some time past I have been advocating the free choice of the physician by the injured workman under the Workman's Compensation Law. Much is said about the employer choosing the physician; but in practice the employer seldom chooses the physician. It is the insurance carrier who does it, and he is not supposed to have a voice in the matter. As for "lifting" I have had a number of cases referred to me. The Young Women's Christian Association sent a young woman to a physician who attended her five or six times, when the insurance company informed her if she did not go to their physician she would not be paid. There are a number of insurance carriers in this State who are employing a man who has 72 dressing stations in this State. He employs physicians to do the work, and they pay all overhead charges and receive \$1.50 per dressing.

This is a question which must be settled sometime. There is a bill now before the Legislature which is designed to give the workman free choice in the matter of choosing who shall treat him when he is injured. It has been said that the employer has been exploited by the physicians; this may be true of some physicians. But which is the worst, to exploit the employer or to do an injustice to the workman. The workman's doctors are not the only rascals. I have heard of many cases of bad treatment by the doctors chosen by the insurance companies. In my recommendation, Section 13, the doctors are to be under the supervision of the Commission. The supervision suggested was that there be a number of paid consultants who should visit cases suspected of not getting the best treatment. Regarding the statement that some physicians are incapable of handling these injuries. The medical profession has the highest standing of all. It takes one year more to receive a diploma than it does in law. It was testified before this committee in Albany that doctors are required to put in five to six thousand hours of instruction in the curriculum, and two to three thousand hours in study at home. In addition they serve in hospitals from two to three years before beginning practice, and 95 per cent. of the physicians in New York are perfectly capable of attending minor surgical injuries. We believe we can be trusted in compensation cases just as well as we are in other cases. If we get a case not in our province, we send him to a man we believe is more capable than we of handling that particular case, and we can do the same in compensation cases.

Dr. R. W. Wilcox: I have never had any experience with the Workman's Compensation act, but at the request of a protegee of mine I was requested to give an expert opinion before a commission. The Commissioner was a man of fairness and patience, who desired that the workman should have proper compensation. The medical expert employed by the Commission happened to be a protegee of my associate. He also was very fair. But with thirty years' experience in testifying in the courts I have never seen a more offensive personality than that of the attorney for the insurance carrier. The attitude which he adopted toward the claimant appeared to me to throw discredit on the Commissioner, who was ready to receive every man as making an honest claim. It is this sort of thing that brings about so much friction.

Commissioner Sayer: I have only a word to say on the point Mr. Bonyng touched upon regarding the lifting of cases. The Board will not attempt to impose a different ruling of liability,

(Concluded on page 275)

Sarcoma of the Heart

HYMAN I. GOLDSTEIN, M.D.

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Camden, New Jersey.

Tumors of the heart are sufficiently rare to merit the report of four cases, with autopsy summaries. Sarcomata of the heart are very rare.

Primary sarcoma of the heart is certainly extraordinarily unusual, and even secondary sarcoma is most rare. There are probably not more than 40 or 50 cases of primary sarcoma of the heart on record in the entire medical literature of the world.

The cases reported here occurred in the services of several of the visiting chiefs at the Philadelphia General Hospital. The first case is a primary sarcoma of the heart, the other three cases are secondary sarcomas of the heart.

There is no characteristic clinical picture for tumor of the heart.

Excessive and repeated hemothorax and pericardial effusion and edema are the most common clinical features of these cases. The symptoms are mostly those of seriously disturbed cardiac activity. Some of the cases gave no symptoms referable to the heart and were discovered only accidentally, at autopsy.

It would prove most interesting to study the hearts of all cases having malignant disease, with or without extensive metastases. The roentgen ray, the electrocardiograph, the fluoroscope, may help to disclose some undiagnosed and unsuspected cases of cardiac tumor.

Tumors of the heart appear to occur more often in the auricles than in the ventricles and more frequently on the right than on the left side.

Case I. Primary Sarcoma of the Heart.

JOHN ASHE.

Service of Dr. Charles S. Potts. Admitted July 15, 1918; died August 3, 1918.

Diagnosis—Polioencephalitis. *Complications*—Arteriosclerosis and Bell's Facial Palsy.

White; aged 52 years; birthplace, New York; residence, Philadelphia; steam fitter.

Chief Complaint—Patient complains of pain in legs below the thighs. He says he has a feeling of hardness in the calves. Some pain in the right eye. Difficulty in talking.

Present Illness—Patient worked until March and as nearly as can be made out he had a facial paralysis and trouble with his lower extremities at this time. The first thing that troubled him was pain in the right eye. He went to the College Dispensary and as nearly as can be made out was in the hospital for ten weeks.

The patient has great difficulty in concentrating his thoughts and his statements are not always logical.

Physical Examination—

General Appearance—Patient is a weak, poorly nourished man of advanced years. Moves his arms and hands in irregular purposeless movements—facial paralysis on right side with fibrillary twitching of muscles on left side of mouth. Patient at times talks irrational.

Head—Emaciation and sunken appearance, sallow color, distended tortuous temporal veins, inability to close right eye with sinking in of upper lid. A marked conjunctivitis and iritis, facial paralysis with drooping on right side, muscular twitching on the left. Patient has foul breath, upper teeth gone, with pyorrhea on remaining lower teeth and dark brown coating to the tongue.

Cranial Nerves—

I. Patient says he smells ammonia a great deal.

II. Patient is able to see out of both eyes and has no hemianopsia.

III. The pupils move laterally in a parallel direction, also downward, but in looking upward the right eye travels up more than the left. Patient says he does not see double (?). Pupils react to right and accommodation.

IV. & VI. See above.

V. Tactile sensations on both sides of face diminished though about equal. Pain sensation normal.

VII. Paralysis of facial muscles on right side. Fibrillary twitching of orbicularis muscles on left.

VIII. Hearing is diminished equally in both ears.

IX. Sensations seem to be present in posterior part of tongue and pharynx though difficult to open the mouth.

X. Can raise shoulders on both sides.

XI. Tongue protrudes to left and twitches.

Neck—Neck is not rigid. Lymph glands are palpable to a slight extent.

Body—Small hemorrhagic vesicles scattered over anterior surface of body.

Upper Extremities—Tactile sensation present on both arms equally. Joint sensation—normal on both sides. Triceps reflexes diminished on both sides. Biceps reflex present.

Abdomen—Abdominal reflex present. Cremasteric reflex (?). Tactile and pain sensations present.

Lower Extremities—Twitching of toes as with fingers. Cutaneous tactile sensation present on both sides. Pain sensations diminished on both sides. Patellar reflex—absent. Babinski (?). Ankle clonus—negative. When attempting to use arms there is a very marked coarse tremor developed so severe that patient has to be fed.

Finger to nose test—Can nearly touch nose with both fingers but seems to hover around before touching it.

Circulatory System—

Heart—At apex heart sounds are feeble. At the base the sounds are also feeble. Heart slightly hypertrophied, to the left.

Pulse—Soft and regular rather low tension and rather easily compressible.

Lungs—Breathing sound diminished—broncho-vesicular, breathing heard over most of right side.

July 19, 1918—

Differential diagnosis—

Polynuclears	60%	Hemoglobin	85%
Lymphocytes	17%	Leucocytes	4200
Large mononuclears ...	3%		

July 20, 1918—Patient more drowsy today and statements are often illogical.

July 21, 1918—Wasserman, negative.

July 20, 1918—Urine analysis: Reddish; flocculent; acid reaction; S. P. 1028, trace of albumin; Epithelial cells, many; granular casts; hyaline casts.

July 22, 1918—No reaction of facial muscles on right side except muscles of mastication to faradic current. Also muscles of both legs diminished in reaction. Facial muscles of right side less excitable than left side and AC KC with galvanic current. In left side KC AC.

July 22, 1918—History obtained from landlady: The latter part of May, the patient complained to his landlady of rheumatism in his back and especially the one side on which face is effected. Patient went to doctor of University Dispensary and week later had facial paralysis. About the 25th of June patient was confined to bed and had to have the doctor come to see him. He then complained of pains all through body and limbs. Was then brought to hospital. F. Beatie, M.D. (under his care for four weeks), of Philadelphia.

July 25, 1918—Spinal puncture taken about 2 cc of fluid withdrawn. It was bloody color but no increase of pressure. Sent to laboratory. (No report from above specimen.)

July 31, 1918—This patient's mental condition is such that it has been difficult to get information that is reliable, especially as regards sensation. Apparently there has been no tenderness over the nerve trunks. The diagnosis, outside of the fact that he has a right sided facial paralysis of peripheral type seems somewhat doubtful.

Polio-encephalitis, multiple neuritis and cerebral syphilis have been considered. He states that at one time he was a heavy drinker but has drunk nothing for 20 years. A marked tremor is present when he uses the arms, so that he must be fed.

August 3, 1918—Patient is extremely weak today. He seems to be unconscious of everything going on around him. He breathes through his mouth with Cheyne-Stokes type of respirations. His pulse is feeble and rapid.

Patient died at 4.25 P.M.

(Signed) McGarvey.

Date of Autopsy—August 5, 1918, performed by Dr. Graf.

Clinical Diagnosis—Polioencephalitis, arteriosclerosis, Bell's Facial Palsy.

Histological Diagnosis—Secondary sarcoma (small cell polymorphous) of lung, primary small cell (polymorphous) sarcoma of heart; secondary sarcoma of pancreas; chronic interstitial nephritis; chronic interstitial splenitis.

At my request, Professor Allen J. Smith of the University of Pennsylvania, examined sections of the heart, pancreas and lungs, and confirmed the diagnosis of sarcoma.

Autopsy note on Clinical History—Pericarditis with sero-hemorrhagic effusion. Bilateral pleuritis effusion with adhesions, tumors found in lungs and pancreas. Oedema of pia and arachnoid of gelatinous character. Excessive fluid at base with beginning atheromatous changes of basal vessels.

Secondary Lymphosarcoma of Heart.

CASE II.

CLARENCE WALKER.

Service of Dr. A. A. Eshner. Admitted, February 1, 1908; died March 3, 1908.

Diagnosis—Pulmonary tuberculosis, pleural effusion.

Color, black; nativity, Philadelphia; age, 22 years.

Chief Complaint—Soreness in chest, shortness of breath, cough.

Family history—Mother dead, cause unknown; father living and well. No history of Cardiac, Renal T. B. Malignancy.

Past Medical History—Had ordinary diseases of childhood. No history of venereal infection. Formerly indulged freely in alcohol and tobacco; has always enjoyed good health.

Present Illness—Started about ten days ago when he had a severe cold, a bad cough with some expectoration. Two days later he was seized with a sharp pain in left side. He became very short of breath and cough increased.

Chest Examination—February 2, 1908.

Lungs—Very dull note. Flat absent fremitus only slightly impaired expansion.

Heart—First sound good and distinct, second not accentuated, no thrills or murmurs. Impulse visible and palpable ordinary extent and duration.

Thorax—Fairly developed shoulders normal, subcostal angle wide, musculature good, fossae and space fairly filled.

Arteries—Radial soft rhythmic, symmetrical, ordinary volume tension length and duration. In general, pulse is fair but not as strong as expected in a young man.

Thorax—Bronchial breathing diminished vocal resonance.

Lungs—Only very faint low whistling sounds; vocal fremitus much decreased and nasal in quality.

Lungs—Posterior, impaired very low bronchial sounds upper third.

Lungs—Nasal fremitus decreased intensity, more than anteriorly less nasal upper third.

Posterior—Little or no faint whistling sounds.

80 oz. removed.

Lungs—Flatness movable on change of position. No tactile fremitus. No expansion.

Markedly laryngeal cough, production.

Breath sounds absent, no vocal fremitus or whispered voice. No expansion.

Sixty-four oz. heavy Albuminous fluid.

Anterior, February 11, 1908.

Lungs—Flat; no vocal fremitus, little expansion.

Heart—Good sounds; heart sounds loudest here (Apex).

Posterior, February 11, 1908.

Lungs—Diminished fremitus, upper lobe flat; no expansion or tactile fremitus lower lobe.

Fifty oz. sero fibrinous fluid, specific gravity 1024, large quantity albumin.

Anterior and Posterior—

Low bronchial breathing, low pitched rather amphoric with spoken and whispered voice bronchial.

No breath sounds, decreased fremitus with nasal quality.

Lungs—February 20, 1908: Flat, absent tactile fremitus, deficient expansions.

Heart—Visible and palpable apex, first sounds good; second not accentuated, no thrills, no murmurs.

Anterior and Posterior—

Elementary bronchial sounds, faint aegophony.

Absent breath sounds, aegophony.

Sixty oz. fluid removed.

Laboratory Record.

Urine Analysis—February 3, 1908:

Phys., pale amber; sed., heavy pink; rea., acid; sp. gr., 1030; sug., none; alb., neg.; all casts negative; crystal amorphous urates.

February 3, 1908—Widal negative.

February 5, 1908—Sputum; negative for tubercle bacilli and pneumococci.

February 6, 1908—Feces; no parasites or ova.

By Dr. R. C. Rosenberger.

Blood Analysis—February 3, 1908:

Poly., 85%; small lymph., 5%; large lymph., 8%.

By Dr. R. C. Rosenberger.

Patient died March 3, 1908.

March 4, 1908, performed by Dr. Gerhard.

Clinical Diagnosis—Pleural effusion; chronic pleuritis; atelectasis; chronic diffuse nephritis; malignant disease of the pleura; dextrocardia.

Gross Anatomical Diagnosis—Atrophy of heart; lympho-sarcoma of pericardium, myocardium, pleura, and mediastinal tissues. Chronic mitral endocarditis; mural endocarditis; congestion and atelectasis; caseous tuberculosis of superficial cervical glands; congestion of kidneys; atrophy of spleen; post-mortem changes of pancreas; passive congestion of liver. Sero-fibrinous pericarditis.

Histological Diagnosis—Lympho-sarcoma of mediastinal tissues, heart and lung; chronic interstitial splenitis and perisplenitis; cloudy swelling and congestion of kidney; chronic interstitial pancreatitis; chronic hyperplastic lymphadenitis; hyperplasia of thyroid.

General—Body of an adult, colored male; good, bony and muscular development; moderate emaciation. Post mortem rigidity present and post mortem lividity in dependent portion. Slight greenish discoloration over abdomen. Irregular subcutaneous swelling in the left side of neck. Superficial veins over the thorax and abdomen and upper thighs disordered. Over the abdomen, legs and scattered in small numbers over the covered parts of the body are seen small scars with pigmented borders.

Lower extremities are somewhat oedematous. Moderate phimosis of the penis; on prepuce is found a small punched out ulcer with flat base. On primary incision marked bleeding from the cut vessels; moderate amount of subcutaneous fat.

Abdomen—Organs in normal position and arrangement. Intestines distended with gas; serous surfaces smooth and glistening; slight excess of fluid.

Spleen—Measures 10 x 5.5 x 1.5 cm.; capsule slightly thickened throughout; presents several firm fibrous adhesions; of a grayish blue color, flabby capsule slightly wrinkled; on section the trabeculae visible. Malpighian bodies just about visible; slight bleeding from the cut vessels; tissue of a dark red color.

Left Kidney—Measures 10 x 5 x 4 cm.; organ is of a reddish-brown color, capsule strips readily, leaving a slight granular surface; stellate veins prominent; several radiating linear depressions from the hilum outward, probably representing vestiges of fetal lobulations. On cut section the organ shows a cortex of a grayish-red color, the markings distinct, semi-translucent; cortex measures 7 mm., does not bulge; the pyramids are dark red in color, shows striations markedly.

Left Suprarenal—Shows nothing abnormal.

Right Kidney—Measures 10 x 4.5 x 3 cm.; is in every way similar to the left.

Pancreas—Is soft, on cut section the surface is very finely granular, granules of yellowish white in color; large amount of fat present.

Liver—Measures 21.5 x 15. x 6.5 cm.; the organ is flabby, of yellowish, bluish-red color; capsule smooth and glistening; cut section exudes a fair amount of blood, and presents a typical nut-meg appearance, the outer portion of the lobules light creamy color. Gall-bladder moderately distended with greenish-brown bile. Apparently normal bile ducts.

Stomach—The glands along the lesser curvature especially at the oesophageal end, and the glands in the gastro-hepatic omentum are enlarged, or normal consistency, especially towards the pylorus, is soft, contains numerous areas of blood diffusion; the mucous membranes of the duodenum shows injection and enlargement of lymphatic follicles. Mesenteric lymph glands are enlarged, movable; on cut sections are of a yellowish white color; tissue semi-translucent.

Thorax—Under surface of the sternum shows a few enlarged lymphatic glands slightly movable.

On the pleural surface of the breast piece on the right side is noted a flat lobular spreading growth, pinkish white in color, elastic to the touch; it has penetrated the intercostal muscles in several situations.

Rt. Pleural Cavity—Contains about 550 cc. of clear straw-color fluid.

Lt. Pleural Cavity—Contains about 350 cc. of same fluid. Sp. Gr. 1020. The pleural surface on the right side shows a few small flat nodules; on the side especially in the lower and posterior portions, numerous nodules, solitary and confluent, varying in size from 1.5 cm. to 1 mm. and smaller. These nodules are elastic to the touch and moderately firm; on cut section the tissue is lobulated, semitranslucent, resembling very closely that of the lymphatic glands.

Pericardium and anterior mediastinal tissue are adherent and markedly thickened and infiltrated by nodular growths similar to those already described but firmer to the touch, with a more yellowish cast to the tissue.

Left Lung—The organ shows the pleural markedly thickened, presents numerous small flattened moderately firm elastic nodules; here and there are seen small pieces of fibrinous membrane which can be scraped off. At the apex is a large irregular, nodular mass measuring 3 cm. in diameter; on section has a similar appearance to the nodule in the costal pleura, also presents areas of hemorrhage. The organ is of a dark blue-gray color; on cut section dark reddish-blue and exudes on pressure a dark red fluid. The posterior portion of the upper lobe on section has a more grayish appearance; the anterior part has a leathery consistence, the posterior portion is firmer.

Bronchial lymph nodes shares in the general tumor of the mediastinum.

Right Lung—Shows very small serous nodules on the serous surface, also small patches of the fibrinous membrane easily scraped off. The organ is small and flabby, of a bluish-red color; on cut section of a reddish-gray hue, exuding a large amount of dark red blood containing a few bubbles of air. The tissue is of a leathery consistency, and crepitates slightly.

Heart—Is small, supracardial fat absent; pericardium generally thickened and opaque, contains on its surface a number of irregular plaques and nodules of a yellowish-white color. On section the tissue is creamy-white in color, semi-translucent, rather firm in consistence. In some places these plaques are covered by small nodules and warty mass which can easily be scraped; they are of reddish white color. The right auricle shows post mortem discoloration of the endocardium; tricuspid valve is delicate, papillary muscles slightly flattened. Pulmonary leaflets are thin and delicate. The left auricle shows slight thickening of the endocardium and post mortem discoloration. The mitral valve shows the papillary muscles flattened and the myocardium infiltrated by growths in the pericardium. The tissue not so infiltrated is of a grayish-brown color.

Neck—The superficial cervical glands of the left side are enlarged; cut section shows yellow caseous areas. The lymphatic glands are enlarged.

Heart—The endocardium is not present on the section. The inner portion of the myocardium apart from fragmentation of the muscle fibres shows no change but on passing outward it is noted that the intermuscular space became filled up by increasing numbers of small round and oval cells with deeply staining nuclei and scant protoplasm. The muscle fibres become atrophic and widely separated and finally necrotic as the ration of the small round cells to the muscle fibres increases. Finally, just beneath the pericardium the muscle fibres have disappeared entirely and are replaced by masses of cells previously described lying in a delicate reticulum and supplied with a moderate number of blood vessels, some with fairly well developed walls, others with their walls but poorly defined from the surrounding tissue. The nerves and larger blood vessels of the pericardium and outer portion of the myocardium lying in this tissue are well preserved although in both instances their outer sheaths are infiltrated with the tumor cells. The external portion of the pericardium together with its infiltrated cells are necrotic. Another section of the heart adds nothing to the picture excepting that it shows transformation of the subpericardial fat to mucous connective tissue.

A third section of the heart presents no individual characteristics.

Lung—In that portion of the lung farthest from the pleura the alveolar capillaries are moderately congested. There is an exudate into the alveoli occurring in patches and consisting of serum and medium sized round cells of the type seen in bronchopneumonia and also dust cells. In this portion of the lungs there is an infiltration of small round cells into the interlobular connective tissue most marked about the vessels. The cells are similar to those described under heart. On passing externally this infiltration becomes more and more marked and in some instances penetrates into the lumina of vessels with resulting thrombosis of the blood vessels or a filling of the lumen in the case of the bronchus with an exudate made up of fibrin, blood, desquamated epithelial cells and many small round cells, indistinguishable from the tumor cells. On passing still further externally the infiltration increases in degree, although there are still many alveoli with these contained exudate unaltered. Here and there where the tumor cells were thickest there are areas of necrosis and hemorrhage. The pleura is infiltrated with these same small round cells and also contains areas of necrosis and hemorrhage. Another section of lung has the same general features, there is an area in this section, however, just beneath the pleura in which the tumor is very rich in dilated capillaries.

Spleen—Capsule thickened and the trabeculae rather prominent, otherwise no change.

Kidney—Cloudy smelling, moderate congestion.

Pancreas—Post mortem change. Some overgrowth of interstitial tissue.

Sections of Abdominal Lymph Glands—In one specimen congestion of the capillaries and hyperplasia of parenchyma.

Second hyperplasia of both parenchyma and interstitial tissue. Lymph vessels must dilated.

Thyroid Glands—The alveoli are enlarged and the epithelium somewhat flattened. In some of the colloid masses there are large and round vacuoles containing a blue, finely fibrillar material.

Section from Mediastinal Tumor Mass—The greater portion of the section is made up of small round cells similar to those described above. These lie in a delicate reticulum. Here and there on the latter, especially at its thickened portions lie cells with round and oval vesicular nuclei. Blood vessels are present in small numbers. They are congested and very thin walled. At some places the reticulum is coarser while there are several large bands of oedematous connective tissue passing across the section. These bands bear no definite relation to the reticulum of the general tumor mass and evidently are portions of tissue invaded by the latter.

ELIZABETH HARMON:

Service of Dr. E. LaPlace. Admitted March 3, 1911; died March 24, 1911. Diagnosis, myocardial degeneration.

Color, black; nativity, Pennsylvania; aged, 55 years.

Family history—Father and mother dead, cause unknown. Three sisters, all dead, from unknown causes; no brothers. Mother of five children—all died in infancy.

Past medical history—None of usual diseases in childhood. Always well until present illness. Has always done hard work—as washing. Denies absolutely alcohol and tobacco.

Present illness—Patient is unable to make any positive statement about her condition. She thinks trouble first began as a hard lump in her stomach about eleven years ago. And has gradually increased in size until at present. The enlargement in the leg began nine years ago and had gradually increased in size.

General Appearance—

Poorly nourished negree appears about 70 years of age.

Hair, gray; eyes, pupils, normal, arcus senilis prominent; neck, much emaciated; chest, much emaciated; expansion, poor; hyperresonance throughout chest; no normal breath sounds.

Heart—No murmurs. The apex beat is prominent. The heart is enlarged downward and to left. The second aortic sound is accentuated. The heart sounds are heard almost over entire chest.

Liver—Dullness is increased downward and to left.

Abdomen—There is a firm oval, resistant which occupies the entire abdominal cavity. Extends from two or three inches above umbilicus to pubic is about size of a foot ball. Is movable to a slight degree feels like a fibroid growth.

Stomach—Pushed upward and is distended.

Left Leg—Much emaciated.

Right Leg—In the right leg there is a large, hard, tumor-like mass extending from hip almost down to knee. This is not quite so hard as the abdominal tumor. It is apparently fixed to the bone or deep muscles. Is not painful, nor tender.

Urine Analysis—March 4, 1911:

Phys., amber; sed., flocculent; reac., acid; sp. gr., 1016; sug., neg.; album., neg.; epithelial cells few.

March 16, 1911—Fluid from possible sarcoma to be examined for osseo-cellular elements.

All hemal elements found; no osseo elements.

Died March 24, 1911.

Autopsy—Secondary Spindle-Cell Sarcoma of Heart.

Autopsy by Dr. H. T. Karsner. Spindle-cell osteosarcoma of femur with metastases to the heart and lung.

Chronic interstitial splenitis. Chronic interstitial nephritis. Cloudy swelling of liver.

Heart—Weight, 375 gms.; small, firm and brown. In the auriculo-ventricular groove at the junction of the posterior margin of the septum is a tumor nodule, measuring 3 x 1 x 0.5 cm., sharply defined and involving the muscle of the left ventricular wall to the depth of 12 mm.

Leaflets and chordae tendineae, and papillary apices are markedly sclerosed.

Foramen ovale is closed.

Endocardium slightly thickened in the left ventricle.

Secondary Sarcoma of the Heart—Case IV

EDWARD T. FLANIGAN.

Med. E. 2254.

Service of Dr. Henry. Admitted March 13, 1913; died April 27, 1913.

Diagnosis—Carcinoma of liver.

Nativity, New York; white; aged 54; occupation, clock repairer.

Chief Complaint—General weakness and swelling of feet.

Family History—Negative.

Social History—Does not use alcohol in any form; has not smoked for 20 years. Never chewed. Tea and coffee moderate.

(Concluded on page 267)

Problems in the Modern Treatment of Acute Gonorrhea

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ASSOCIATE CHIEF, ST. MARK'S HOSPITAL GENITOURINARY CLINIC,

New York.

We constantly read in current literature that the treatment of acute gonorrhea is unsatisfactory. I have for many years felt that there is no acute infectious disease which is so amenable to treatment, if carried out along scientific and practical lines. One hesitates to outline any method of treatment as the ideal one which will assure success. There will always be a percentage of failures and the truth is that the treatment of this disorder is as much an art to be cultivated as is the treatment of disease in any other department of medicine. Each case must be studied and treated as indications arise by the light of previous experience.

The microscope is our greatest aid in the treatment of gonorrhea; without it we cannot intelligently treat the disease. Not only is it the chief factor in making the diagnosis, but also in determining the course of treatment.

The diagnosis of an acute gonorrhea is generally easy and in every case the physician should depend upon the microscopic examination of the secretion in order to make certain of his diagnosis. The gonococcus is a diplococcus; each half is kidney shaped with the straight sides facing each other, separated by a minute space so that a single pair has the appearance of the flat surface of a coffee bean. They are arranged in pairs, four, eights, etc., and appear in groups. One marked peculiarity is their arrangement within the pus cell; they also may be seen outside and between the pus cells, and on or within the epithelial cells. They are best seen with an oil immersion lens, and an easy method of finding is by means of the methylene blue stain. A good stain may be obtained by making a thin smear of the secretion on a glass slide, drying it carefully over the alcohol flame, then covering the smear with a few drops of the aqueous solution (blue): Then the slide should be washed with a little water, dried and a drop of cedar oil placed directly on the stained surface. Examination should be made under the oil immersion lens without of the use of a cover glass.

For ordinary office work this method is found to be very satisfactory, and after one has become familiar with the appearance of the field containing the intracellular diplococci, a more elaborate method will be found to be of use in special cases only.

The so-called Gram-Roux method of staining, is, of course, more accurate, and sometimes will be found to be of important help, but where it is used for greater accuracy in diagnosis, it is often necessary to employ the culture test. This method, however, is of great use, especially in the examination of discharges from chronic gonorrhea, or in the late stages of the acute form. These methods depend upon the greater ease with which the gonococcus gives up to its stain, as compared to other diplococci which resemble it.

Occasionally anomalies occur in cases coming very early, thus permitting a mistake in diagnosis. These usually appear in men who have had previous attacks. A number of micro-organisms will be found and no evidence of the gonococcus and the case is not pronounced a gonorrhea and no immediate treatment instituted. On seeing these cases at a later period, pure cultures of gonococci are seen. The knowledge that

such a phenomenon may occur should prevent us from arriving at too hasty a conclusion.

Another way in which the findings of the microscope may be misinterpreted is illustrated by a case seen on the first day of the discharge by a physician, who found gonococci present in the discharge and furnished the patient with a solution of protargol to use during the day. This caused increase of the discharge and considerable discomfort on the part of the patient. On his return the following day he was seen by another physician, owing to the illness of the first. The physician found in the rather profuse discharge no micro-organisms of any kind. Having no knowledge of the previous findings, he at once pronounced the case as non-gonorrheal, but a discharge due to chemical irritation, and advised the discontinuance of the treatment. The secretion quickly subsided and remained so for ten days, when it reappeared and at the same time was accompanied by symptoms of posterior urethritis. A knowledge that often a single injection of protargol will cause a disappearance of the gonococci for twenty-four hours or even longer would have saved the second physician from making this error in diagnosis.

There is more than one way, then, to treat a gonorrhea successfully in its acute stages; and the method which proves successful in the majority of cases in the hands of one man, may prove disastrous when tried by another. Some general rules, however, can be laid down as guides to follow.

In acute gonorrhea we have to deal with what is known as a self-limited disease, but which by reason of bad treatment or neglect, or lack of constitutional vigor, is capable of lasting indefinitely, or setting up pathological lesions which will always leave their impress upon the organism. Though the disease may be self-limiting in the sense that its most prominent symptom, a urethral discharge, may definitely cease, yet the etiological factor, the gonococcus, may remain or lie indefinitely dormant and be capable of transmitting infection to others unless means are taken to eradicate it; while in the absence of irritation, the urethra will be immune in a sense to its own gonococci. In this condition, however, it is capable of receiving a fresh infection and undergoing a new typical attack. Under certain conditions, whether by the action of irritants, or from over-indulgence in either alcohol or coitus, a discharge may be set up in which these gonococci will be found in increasing numbers. It may quickly subside on application of hygienic treatment, but the contagious element still remains as before. Some cases even when untreated or only indifferently treated will recover and the gonococcus will die out completely, but in many of these cases urethral lesions may be left behind which will form a focus for the infection of other pathogenic organisms.

The earlier the diagnosis of gonorrhea can be made and treatment for its eradication be instituted, the quicker and more safely can the case be brought to a successful termination with less chance of accidental complications or the disease going on to a chronic process. Many physicians make the mistake of waiting in the presence of a slight urethral discharge for further development, instead of making an immediate microscopic

examination to establish the diagnosis. Or the patient will try some home remedies before presenting himself, and valuable time is thus lost. Patients with the first attack are unsatisfactory for another reason; they not only waste good time at the start but often come with the idea that they are to be cured quickly, and at the first cessation of the discharge stop their visits cease with the result that a fresh outbreak indicating an infection deeper in the canal springs up. This is far more difficult to eradicate than it would have been had they continued treatment.

Though there may be a difference of opinion as to the proper management of a case which has existed for several days, still in the light of past experiences there is absolutely no doubt in my mind as to desirability of instituting radical measures at once if the case has come early in the disease. Hours make a vast deal of difference at this time. Hot irrigations have been found to be soothing to the inflamed urethral canal. In some cases I use irrigations of potassium permanganate solution; the heat undoubtedly has an effect on the gonococci in the deeper portions of the tissues. Irrigations have to be copious and frequent, but must be used by the physician himself, beginning at 105° to 110° F. The heat can readily be carried up higher to 120°. The test is the effect on the patient, as it must not be too irritating.

Next the germicide; in acute disease, protargol in varying strength, from one-half to two per cent held for ten minutes. As a beginning injection I use a full urethral syringe. Fill it a half each of two per cent cocain solution and two per cent protargol solution. The anterior urethra only is treated, as long as it only is affected. In cases seen early I try to give the treatment twice a day for three or four days, depending upon discharge and microscopical findings. I have seen cases in which the gonococcus has disappeared absolutely after the first treatment and have not been encountered again. In others, the cocci take a long time to disappear from the discharge, while in some after disappearing for a time they reappear or do not disappear at all. At the same time the patient may not have suffered from the symptoms of the disease at all; he feels in every way as well as if he did not have the disease. These are the cases that remain anteriorly only and have infected follicles in the urethra, usually near the meatus.

If the patient presents himself later than the third day the disease is practically in full blast. Even then patients do better with protargol injected with hand syringe than with any other treatment with which I am acquainted. Sometimes during treatment certain modifications are necessary. If the disease has made considerable progress before presenting, there is much room for difference of opinion as to whether we shall begin local treatment at once or wait for the decline. I prefer to begin local treatment at no matter what stage, for the course of the disease can be considerably modified by this treatment and it can be used even when complications are present, though one should know what the limitations are before using it. Of course, we know the gonococci have penetrated the mucous membrane and only those on the surface are affected, yet all those on the surface can be annihilated and those deeper in are removed as they are brought to the surface by the exudation of pus.

Cases will be found where these remedies seem absolutely impotent and we have to look for assistance from other remedies locally or internally. The diet must be watched and general health looked after. For instance, the balsams, if given understandingly, will be of use; it should be remembered that this is of assistance only

and not curative in any sense of the word. Ten minim doses of santal oil, three times daily, yield good results but it should never be used indefinitely; if it does not give prompt action it should be discontinued. As soon as the posterior urethra has become invaded it is the practice of the writer to treat that locally also; to be of use treatment should be at least once daily and the time for instituting treatment depends on the condition of the anterior urethra.

Much has been written, however, against irrigation into the bladder from the meatus without the intervention of the catheter; when this can be accomplished without discomfort to the patient it is an excellent method, but where the slightest force is used it may cause a worse condition than the disease itself. This is due to the utter misconception of the proper manner of performing irrigation of the posterior urethra and bladder without a catheter. Many writers speak of forcing the compressor muscle by hydrostatic pressure; of course, this can be done with what an amount of discomfort and injury to the patient. To do this properly we should have the full co-operation of the patient. After the anterior urethra has been thoroughly irrigated the patient is told to urinate just as the fluid is entering the canal; he will thus relax the compressor muscle and while he is doing this the irrigating fluid is allowed to flow along the urethra and will enter the bladder. As soon as the patient has caught the trick the bladder can then be readily flushed from the meatus and urinated out. If the patient does not relax properly the practice should be omitted.

Of great importance is the use of protargol in the posterior urethra; a soft rubber catheter, lubricated with a soluble lubricant is very gently passed down to the compressor muscle and filled with protargol to expel the air; number twelve French is the best size and should have a wide mouth for receiving the syringe. The catheter is then slipped very gently past the compressor muscle into the posterior urethra and from one-half to one ounce of protargol solution (gradually increasing to two per cent) is slowly instilled into the bladder. Some cases with posterior urethritis, however, do not completely empty the bladder; when this is found to be the case, before instilling the protargol the catheter is passed into the bladder with the utmost gentleness and the bladder emptied; the catheter may then be withdrawn from the posterior urethra; the protargol in it will be urinated out as before.

The examination of the prostate is important when the posterior urethra is affected. The size, consistency and tenderness is noted. The expression from the prostate is examined on a slide and the presence of pus, gonococci and other bacteria is noted. When the prostate is found to be inflamed I massage it three times a week and treat the posterior urethra at the same time.

The cure of an acute gonorrhea may require three months or longer. A cured patient should present no morning drop, the urine should be clear, no shreds present and the massage of the prostate should contain no pus or bacteria. The urethral lumen should be free from any narrowing or stricture formation. The complement fixation test should be negative.

320 Second Avenue.

Arsphenamin in General Paresis

De Fursac and Furet report the results of salvarsan treatment in 43 cases of general paresis, from September, 1920 to October, 1921. No results in 15; strikingly notable remission in 10; appreciable remission in 10; arrest of the disease without noticeable improvement in 8. This shows that if salvarsan treatment does not cure those with general paresis, it is at least capable of improving their condition. (*Encephale*, Paris, January, 1922).

CARE OF THE BREAST DURING PREGNANCY AND THE PUERPERIUM.*

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Those of you who have attended the clinic in pediatrics, to which the children born in this hospital return monthly for examination, no doubt have observed that the infants who are breast fed almost invariably do well while frequently the reverse is true of those whose food is artificially prepared. The great majority of sick children referred to that dispensary from outside sources, likewise are bottle babies. We may conclude from these observations that artificial food is a poor substitute for breast milk, and that maternal nursing is one of the best safeguards against disease in infancy. Maternal nursing, therefore, should be encouraged and a proper routine should take the place of the customary indifferent management of the breast during pregnancy and the puerperium.

To illustrate the consequences of this indifference concerning the care of the breasts I shall give you the early history of an infant which is being artificially fed because of failure of lactation. Soon after birth it is placed upon breasts which have received no attention during pregnancy. Nursing is repeated whenever the child cries or the mother feels that it is in need of nourishment. In a few days the nipples become tender and fissures appear. When the secretion of milk begins on about the third day, the breasts become engorged and very painful. Because of this pain and the exquisitely sensitive fissured nipples the mother avoids nursing her infant. If the child is weighed daily a progressive loss in weight is observed and an elevation in temperature soon leads the attendant to suspect inanition fever. He then prescribes a weak formula of modified cow's milk as a supplementary feeding. Since a nursing bottle may be emptied with much less effort than can the mother's breast the infant takes its bottle well and refuses the breast. The mother, observing her child's dislike for the breasts, usually fears that it is unable to nurse upon them or that her milk is not satisfactory. This anxiety together with the loss of the necessary stimulation of suckling soon leads to the cessation of the milk secretion and the child becomes a full-fledged bottle baby.

We may conclude from this history that the underlying factors in failure of lactation usually are:

- (1) Tender and fissured nipples.
- (2) Painful engorgement of the breasts.
- (3) The anxiety of the mother concerning her inability to nurse her child.
- (4) The supplementary feeding.

We may also conclude that a proper routine must aim to avoid or relieve these conditions. In addition to the measures which aid in the realization of this aim we must include in our management of the breasts every possible means of preventing infection, since mastitis is not only a serious maternal complication but its treatment requires the discontinuance of nursing and thereby it becomes an additional or fifth factor in the loss of the breast secretion.

As we examine the cases in our ward I shall discuss these five factors in the order given and attempt to show how our routine cares for each of them.

Tender and Fissured Nipples.

During the latter months of pregnancy it is well to cleanse the nipples daily with soap and warm water that has been boiled. After thoroughly drying them sterile liquid petrolatum should be applied. Attention to this detail will soften the integument and render the nipples more suitable for nursing. Since repeated manipulation carries with it possibilities of infection, the patient should be instructed to scrub her hands before handling the breasts and use only freshly laundered linen when drying them. If the nipples are small gentle traction will aid in their development.

After delivery the care of the nipples may be considered under three heads:

- (1) Cleanliness.
- (2) The use of a sensible schedule for nursing.
- (3) Treatment of fissures.

Cleanliness is maintained by washing the nipples before and after each nursing with a sterile saturated solution of boric acid. During the intervals between nursings a small square of sterile gauze placed over the nipple will absorb any milk which may ooze out at such times and prevent irritation and contamination from the night-gown.

A sensible schedule for nursing is the most important of all of the measures which aim to prevent tender and fissured nipples. For the first two or three days little or no nourishment is obtained from the breasts. During this time the child's attempts to nurse are very vigorous. By comparing the nursing of an infant at the end of the first 24 hours with that of another who is 6 or 7 days old you will observe that the first causes more trauma in a few minutes than does the latter in a much longer period. The first child repeatedly grasps the nipple between its lips and alveolar ridges, while the latter, after drawing upon the nipple until a sufficient quantity of milk is obtained, swallows the same and usually rests a short time before repeating the process. If, therefore, we allow the mother and child to follow their own inclination many nipples will become very sensitive and even fissured by the time the milk secretion is well established. After seeing this demonstration some of you may conclude that it would be better to keep the infant off the breast until the secretion of milk has commenced. Our objection to this conclusion is the fact that considerable anxiety on the part of most mothers would result if their children did not nurse daily, and all who have studied lactation admit that contentment is essential to a good milk supply. We feel that we avoid this anxiety and at the same time prevent considerable trauma by permitting the child to go to the breast only every 6 hours for the first two or three days. At these nursings just one nipple is used and the infant is allowed to suckle not longer than five minutes. Thus only ten minutes of nursing on each breast are permitted daily. After the milk comes in feedings are given every three hours and last for twenty minutes. While at the breast the infant should be permitted to nurse and not encouraged to sleep until it has received sufficient nourishment.

The treatment of fissures is similar to the treatment of small wounds in other parts of the body. In order that we may discover them early the nipples should be inspected daily. Under a routine of cleanliness and rest this troublesome complication rapidly disappears. Absolute rest can be obtained only by discontinuing the nursing on the affected breast. While this is an excellent procedure when viewed from the standpoint of surgery it is not justifiable in most cases as the stimulating effect of suckling is essential to lactation. By using

*A Clinical Lecture delivered at the Long Island College Hospital. Dr. Beck's paper was published originally in "The Medical Times" of March, 1919. We are reprinting it in this issue because of the persistent demand for reprints and original numbers, which for some time we have been unable to supply, owing to the exhaustion of all copies. The demand has come from practitioners, teaching and nursing organizations, State Departments of Health, maternity centers, etc. In addition to our own reprinting, at least two other publications have been given permission to reproduce the article. Practical, authoritative, simple in style, and needed, the article appears to satisfy all criteria, and is a model of the kind of paper that ought to be written more frequently.—Ed.

a nipple shield partial rest may be favored without interfering with the function of the breast. The nipple shield should be boiled before using in order that we may avoid infection. We never use silver nitrate or any of the various ointments recommended in this condition as we have found that nature, when aided in the manner already described, quickly heals fissured nipples.

Painful Engorgement of the Breasts.

Engorgement of the breasts usually is observed about three days after delivery. The breasts become swollen and frequently are very painful. As this distention spontaneously disappears within a few days our plan of treatment is directed towards the relief of the pain only. In most cases proper support of the breasts is followed by immediate relief. This may be accomplished by the use of a sling applied in the following manner. As you observe, the sling is a piece of cotton cloth about eighteen inches wide and a yard and a half long. It may be torn from an old sheet. The sling is passed under the patient's back and both ends are drawn out in order that no wrinkles may remain under her. The right breast is lifted upward and towards the midline and, after placing a cotton pad under the outer and lower quadrant, the right end of the sling is carried over the left shoulder and pinned. The left side is adjusted in a similar manner. At the two points where the upper and lower margins of each side cross safety-pins are inserted to prevent slipping. A piece of cloth about two inches in diameter is now cut away from the center of each side in order that the child may nurse without removing the sling. During the intervals between nursings a small square of sterile gauze is strapped over this opening. (See Figures 1 and 2.)

When the sling is properly adjusted the breasts are supported without compression and the relief is almost instantaneous. If this measure does not suffice an injection of one grain of codeine may be given. We do not

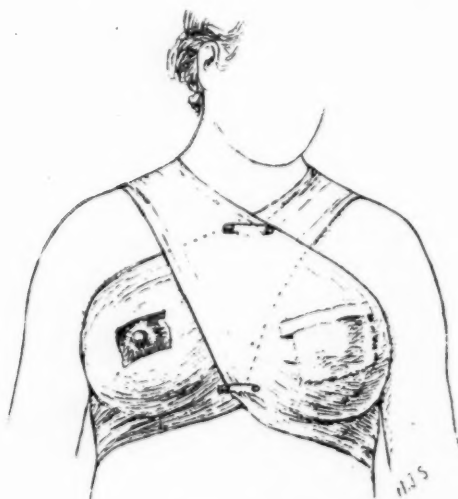


Fig. 1. Breast Sling: Front View.

restrict the fluids, give cathartics, pump or massage the breasts as the above routine is sufficient.

Anxiety of the Mother.

Because of the deleterious effect of worry upon lactation we should strive to keep from the mother knowledge of anything which might give rise to anxiety. The child should be kept in another room in order that its crying may not disturb her. Should it lose in weight,

nothing can be gained by informing the mother of this fact. Cheerfulness on the part of the nurse is a great help during the early days of the puerperium.

Supplementary Feedings.

Since most infants prefer to nurse from a bottle supplementary feedings should be discouraged unless they are absolutely necessary. The child should be weighed before and after each breast feeding, and the bottle when given should contain only sufficient milk to equal the difference between the amount it received from the breast and the amount which should have been obtained.



Fig. 2. Breast Sling: View From Behind.

It is a poor plan to give breast and artificial feedings at alternate nursing periods as the child usually will wait for its bottle and avoid suckling. Whenever artificial food is prescribed it should be given immediately after the breast feeding.

Prevention of Infection.

Absolute asepsis is admittedly impossible. If, however, we regard the nipples as areas containing many minute orifices each of which is capable of becoming infected we will appreciate the need of employing a routine which is as aseptic as possible. Because fissures are the usual forerunners of mastitis their prevention and prompt relief are essentially a part of the prophylaxis against infection. We should avoid touching the nipples with anything which has not been previously boiled or sterilized. Except for the child's mouth, which obviously cannot be sterilized, this rule can be followed as scrupulously in the care of the breast as it is in the dressing of a clean surgical wound. The boric acid solution as well as the cotton swabs employed in cleansing the nipples before and after nursing are boiled before using. In the intervals between feedings a piece of sterile gauze strapped over the nipples protects them from contamination. Neither the patient nor the nurse should touch this area with her fingers. The practice of pulling out the nipple before nursing is pernicious as this structure can be forced into the infant's mouth by holding the tissue in the vicinity of the areola. The nurse should never prepare the breasts for nursing without first cleansing her hands. The patient's nightgown should open in front or should have a yoke sufficiently low to permit easy access to the nipples through it. To draw the bottom of the nightgown up over the breast is

uncleanly and a fruitful source of infection since it frequently is soiled by the unsterile vaginal discharge. If the child has a purulent ophthalmia or pustular eruption great care should be used to avoid contamination from this source. *The use of a breast pump is seldom indicated in the treatment of breast complications. As it frequently causes infection, the common custom of*

pumping should be discouraged.. When indicated an aseptic technic must be employed, i.e., the pump should be boiled before using and contamination should be avoided by not allowing it to touch unsterile objects.

In conclusion I shall outline for you the care of the breasts from the standpoint of avoiding failure of lactation.

Failure of Lactation	Causes		Treatment	
	Tender and Fissured Nipples	Prophylactic	Before Delivery	{ Cleanliness Application of Liquid Petrolatum
			After Delivery	{ Cleanliness Proper Nursing Routine
	Painful Engorgement	Curative	Early Recognition	{ Cleanliness and Asepsis Rest—Nipple Shield
			Support with Breast Sling Codeine if Necessary	
	Anxiety of the Mother		Keep Child in Another Room Don't Inform Mother of Child's Failure to Gain, etc. Cheerful and Optimistic Nurse	
	Supplementary Feeding		Use Only When Absolutely Necessary Give Insufficient Amount to Satisfy the Child Give Immediately After Breast Feeding	
	Infection	{ Prophylactic	Avoid Fissures Avoid Touching Nipples with Fingers Wash Nipples with Sterile Solution Cover Nipples with Sterile Gauze Don't Pump Breasts Avoid Contamination from Eyes and Pustules	

(Concluded from page 262)

ately. No candy, pastries, sweets, etc., excessively. "Clap" 25 years ago. Cannot retain urine long; denies syphilis.

Previous Medical History—Had small-pox when eight years old; usual diseases of childhood. Began to lose hair about 22 years ago.

History Present Illness—Eighteen months ago began to feel quite different than normally, such as: easily tired when walking, or was soon fatigued by small amount of work. This condition has progressed viciously. Once during this time had a diarrhea, which lasted six weeks, condition was not a real diarrhea, but was a desire 8 to 10 times a day to defecate and each time only a very small amount of liquid material was passed. At this time had gripping pains in rectum. Water scanty lately. No burning. Sometimes dripping of urine.

Physical Examination—Slender, very much emaciated, white male; bald headed. Right eye removed on account of baseball injury several years ago. Left eye reactions are normal. Tongue heavily coated white fir. Teeth sound but very dirty; gums inflamed, breath foul. Enlarged sub-maxillary glands. Pulse full, regular rate and rhythm; tension normal. Arteries somewhat hardened and tortuous.

Chest—Expansion poor; greater on left side; ribs prominent. Apex beat diffused and there is a thrill of short duration felt in systole. Vocal and tactile fremitus diminished over enlarged liver area.

Lungs—Show nothing pathologically significant.

Heart—Apex beat, see above. Borders—left $\frac{3}{4}$ inch within anterior axillary line; right border $\frac{1}{4}$ inch to right of sternum; upper boarder lower edge third rib. Systolic murmur low and rough, heard over body of heart, best at the mitral region, transmitted to axilla.

Abdomen—It is tender, full and tense upper half. Lower half normal in appearance. Fullness extends to lower part of thorax and epigastrium and flaring rib is noticed. *Tumor*: Fills upper abdomen to line of umbilicus. Edge is sharp. The edge followed around from the sides curves up above umbilicus toward epigastrium making a V-shaped notch. Follow the apex of the notch and discover a groove in the tumor dividing it into right and left parts. On the left part a boss is not only felt but is visible. Note over tumor is flat. This flat note extends into chest as high as the fifth rib on right side; dull in chest, above this is third rib. Veins of epigastrium and left and right upper quadrant of abdomen are dilated. No fluid in abdomen.

Extremities—Slight edema of lower extremities. Patient states this was very bad until he got in bed.

April 6, 1913—No edema of extremities today. Patient unchanged.

April 18, 1913—Patient has had a number of vomiting spells since admission when in gested solid foodstuff. Did not vomit before admission to hospital. On above notes failed to note that a few other nodules in liver were felt few days after first examination in which but one was found and noted. Liver has increased a little in size.

Urine Analysis—negative.

Blood Analysis—

April 19, 1913—H., 85%; R. B. C., 5,700,000; W. B. C., 13,800; blood flowed in thick drop; dark, almost grumous.

Feces—Occult blood and fat present.

April 23, 1913—Movable dullness, percussion fluctuation and more distention of abdomen. Fluid in abdominal cavity.

April 25, 1913—Jaundice of right conjunctiva and slightly of skin. Fluid in abdomen and tumor increasing in size and amount.

April 26, 1913—Jaundice of skin now distinct. Patient had a sinking spell accompanied by some pain in region of enlarged liver. Pulse became very weak and for an hour or so patient could not articulate but he recovered from this, in time, he understood but could not answer intelligently.

April 27, 1913—3.40 P.M. patient died.

Primary cause not known and if carcinoma of liver is not primary the primary focus not demonstrable.

Autopsy—Secondary Sarcoma of Endocardium, Epicardium and Myocardium.

Autopsy performed by Dr. Lynch. Secondary sarcoma of heart, spleen, thyroid, kidney, pancreas, small intestine, and liver, etc.

Extensive metastasis. Metastatic melanotic sarcoma of skin, bones, lymph nodes, serous membranes, gall bladder, urinary bladder, and right orbital tissues. (Enucleation right eye.)

Secondary sarcoma of endocardium, epicardium and myocardium.

REFERENCES

1. Perlstein: American Jour. Med. Sci. 1918, p. 214-230.
2. Link: Ztschr. f. Klin. Med. 1908-1909, LXVII, 272.
3. Goldstein: New York Med. Jour., Jan. 18, Feb. 1, 1922.
4. Ehrenberg: Sarcoma of the Heart. Deutsch. Arch. f. klin. Med., 1911, ciii, 203.
5. Binder: Frankfurter Zeitschr. f. Path. 1914, xv, 194.

1425 Broadway.

DEAF EARS IN CHILDREN

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It is the consensus of opinion of the majority of otologists that deafness is preventable. To put it in other words, the majority of cases of deafness start in early childhood. The deafness remains unnoticed, sometimes for years, until it is impossible to remedy the underlying condition. In our experience in the New York League for the Hard of Hearing, it has been found out that the majority of the people who come to the League became deaf before the age of puberty. Sometimes the deafness was discernable shortly after a severe illness; in other cases it was only discovered when a report came from school that the child was not keeping up with his studies.

The acute illnesses of the ear are sufficiently appreciated at the present time for them to be taken care of properly. Such acute ear conditions may have many causative factors, the chief among which are repeated colds in the head (often associated with diseased tonsils and adenoids), and the ear infections which are associated with the exanthematous diseases, particularly measles, scarlet fever and diphtheria. Other diseases, such as syphilis and meningitis bring on a deafness which is readily appreciated and which forms an almost hopeless problem. But unfortunately, in the majority of cases of acute middle ear disease, the ears receive little or no attention after the acute process has subsided. This is so whether the patient has been treated in a hospital or at home. And it is just at this time that a great deal can be done to restore the hearing.

Although no definite statistics are at hand, it is presumable that there is a defect in hearing, temporary at least, in the majority of children who have had an acute ear process, whether it be associated with an infectious disease or not. The hearing can readily be tested with a watch which should be heard at least three feet from the ears. If the hearing is found to be below normal,

the child should at once be referred to a competent specialist. The fault of not doing so often rests on the parent but sometimes it is due to the harmful advice of the practitioner who states that the ear trouble will pass away or that nothing can be done for it.

When the child is first seen it is absolutely necessary to get his confidence. Sometimes the defect in the hearing can be measured by ordinary conversation. A thorough examination of the nose and throat should be made and, if tonsils and adenoids are present they should be removed. In the majority of cases the eustachian tubes of children are wide open which, perhaps is one of the reasons why the ears become so readily infected. But this patency is a great aid in treatment for it means that the majority of these cases can be readily Politized. The hearing should be tested both before and after treatment. As a rule the hearing is markedly improved. Such improvement may only be temporary or it may last until the little patient gets a congested condition of the nasopharynx again when another treatment will be necessary.

Within the past year the author has seen a number of children who, he is sure, have been prevented from becoming hopelessly deaf. One child could not hear a watch held close to either ear. The tonsils and adenoids were removed, whereupon the hearing returned to normal and has remained there. In a second case the child was so hopelessly deaf that he was referred to a school for the deaf. After the first treatment with Politization his hearing came back to normal and weekly treatments have kept the hearing acuity. Numerous similar instances could be recorded.

The question of deafness in children has assumed such importance that it is hoped that a clinic for the treatment of such cases will be established within a short time. There is surely a need for such a clinic for there is no greater handicap, in the battle of life, than the loss of hearing.

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The Place of Health Examinations in the Practice of Medicine

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Sizing up the physical fitness of the apparently healthy is occupying the time and thought of an increasing number of medical men. Reasons that make this worth while are the increased facilities for detecting early stages of disease, combined with an appreciation of the importance of health as a personal and economic asset.

The basis for determining physical fitness is the so-called health examination, which is nothing more or less than an extensive and complete physical examination aiming to detect need for medical treatment or for changes in the examinee's mode of living or working. In addition to the examination of the vital organs and the search for contagion, minor conditions under the applicant's own control, such as flat foot, constipation, neglected teeth, flabby muscles, poor posture and inactive skin, receive special attention.

Physical examinations may be simple or extremely elaborate where facilities and time permit, but the features that make it a health examination are in addition

to its purpose and the mode of interpreting the findings to the examinee the state of mind of the applicant who seeks medical direction for health when free from self detected evidence of disease.

In the usual case suitable for health examination fear of death or of incapacity, or even of physical pain are not an immediate enough prospect to stimulate the examinee to mend his ways. New incentives have to be discovered which necessitate a knowledge of the applicant's personality, habits and ambitions.

For instance, if an examinee has digestive distress without organic changes and inquiry reveals poor preparation of food, hurried eating, or quarrelsome companionship at meals, he must be interested in changing these condition before improvement can be hoped for.

To show the difference and the similarities between health examinations and other types of medical examinations the following diagram has been prepared:

TYPES OF MEDICAL EXAMINATION

	Health Examination for Determining Physical Capacity	Diagnostic Examination	Examinations for Purposes of Administering Treatment	Examination for the Detection of Defects	Examination for the Detection of Communicable Disease
Object of Examination	To estimate the efficiency with which the various organs and tissues of the body function so as to determine the need for medical treatment and to serve as a basis for suggestions in modes of living that will improve the examinee's adjustment of life.	To discover the presence of disease in any of the tissues or organs of the body, to define it if it exists, and determine its extent sufficiently to make a prognosis.	To discover the causes of symptoms or complaints of a patient with accuracy and in sufficient detail to form a basis for treatment procedures.	To discover the presence of physical defects that endanger length of life, require medical treatment, or health guidance, not in detail enough to direct the treatment or even to instruct in their care.	To detect the presence of a communicable condition.
Suitable Examinees	Persons interested in maintaining physical efficiency but with no symptoms of definite disease.	Persons conscious of some disease condition obscure or ill defined. Frequently referred by physicians either from treatment or from health examinations.	Patients suffering from definite symptoms.	In industry, for life insurance, at school, and especially in childhood where it is important to correct defects before they become handicaps.	Children going to join a group in institution or on a vacation, users of swimming pools, food handlers, immigrants at Ellis Island, etc.
Necessary History	Details of hygiene and dietary habits. Industrial history, strains and hazards. Economic status. Present activities, recent or serious illnesses or exposures.	Detailed medical history, diseases past and present, family history, details of present symptoms.	Disease and family history, details of symptoms and present complaint.	Recent and serious illnesses. Present complaints.	Communicable disease history. Recent exposures. Present acute symptoms
Record Forms	Index for habits, industrial strain and hazards as well as physical tests, measurements and parts to be examined. Questionnaire for examinee.	Detailed forms with headings for various tests and special examinations.	Practically blank form—merely spaces for identification data.	Headings for tests, history, list of defects to be sought, space for summary and remarks.	List of communicable diseases to be checked, with space for statement of examinee's condition.
Parts Examined	Nervous, digestive, respiratory, circulatory, excretory, skin, genito-urinary and locomotive systems as well as the special senses.	All tissues and organs in detail that are not known to be in good condition.	Tissues or organs indicated as possible causes of symptoms.	Special senses, teeth, tonsils and adenoids, heart, lungs, abdomen, hernia, genitalia.	Throat, skin, hair, conjunctiva, genitalia, lungs.
Physical Tests	Vision, hearing, blood-pressure, height, weight, P.T.R. Vital capacity, muscle tests, physical measurements.	Special senses including throat examined by a specialist.	Made if indicated. Special sense examinations referred to specialist.	Blood pressure in adults. Height and weight. Pulse, temperature, respiration, vision, hearing.	Pulse, temperature, respiration.
Laboratory Tests	Simple urine, Wassermann if indicated, hemoglobin.	All that may be indicated.	Detailed but related to symptoms.	Urine in adults.	Stick, throat culture, sputum, blood, stool, vaginal smear as indicated.
Time	One hour if doctor does not make tests but instructs the examinee.	Off and on for a week or two.	Five minutes to a week, off and on.	15-20 minutes including tests.	3-5 minutes.
Reports to Examinees	Examinee or agency given full and detailed report of findings with constructive suggestions on needed treatment and modes of living.	Full and detailed reports to the patient or his physician.	Patient told as much as is necessary to carry forward his treatment.	Examinees given information as to needed treatment verbally and in writing.	Examinees notified of the existence of communicable condition with directions as to needed care or treatment.
Responsibility for Follow-up	Examinee responsible and where treatment is not required the examinee should report progress to examining physician and return for periodic examination.	Patient or the family physician responsible.	Physician mainly responsible.	Agency or family or the examinee himself responsible for having defects corrected.	Examinee, agency, or family responsible. Physicians must report communicable conditions to the Board of Health.

To medical men absorbed in the treatment of sickness, health examinations usually do not seem worth while. "Why," they say, "should we spend time on persons in fairly comfortable condition while there are so many others suffering actual pain!" Could we but convince these men, however, that they could combine with their service to the sick, advice and needed warnings on the basis of health examinations to others, they would soon discover that their efforts in this line were in many cases much appreciated and financially valued as well as productive of happiness and efficiency. Even where results were not directly apparent, they would usually find that their clients have gained a more thorough understanding of their health problems, and will employ medical service more fully and with more intelligent cooperation.

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Campaign Against Venereal Diseases in Jugo-Slavia.

The Sanitary Board of Jugo-Slavia has formulated proposals for a law similar to that in Czechoslovakia which has given very good results for one and a half years. The main proposals are given. (*Lancet, London, March 18, 1922.*)

Constipation and its Surgical Relations.

James C. Minor, of Kansas City, Mo., told the American Proctologic Society that a very large percentage of cases of constipation are produced by diseases and obstructions of the rectum and sigmoid, and can be relieved only by surgical interference. He called attention to such conditions as lumbago, sciatica, kidney disturbance, chronic appendicitis and gall bladder obstruction, which are often associated with constipation and often clear up when that is relieved. He mentioned as direct causes of constipation, hemorrhoids, fissure, fistula, hypertrophy of sphincters and rectal valves, growths, intussusception, improper habits, errors in diet and particularly insufficient intake of fluids. The profession recognizes, as never before, but still inadequately, the importance and insidiousness of rectal disease, particularly cancer, the far reaching consequences on the general economy, and the necessity for rectal as part of every complete physical examination. Extra-intestinal causes of constipation, neoplasms and displacements of the abdominal and pelvic viscera, etc., must not be overlooked. Retention of feces from constipation or obstipation produces toxæmia and gas pressure, the latter often responsible for appendiceal and gall bladder disturbances. The irritation of such feces on a benign condition may produce a malignant one, and so constipation becomes a predisposing cause of cancer. The family physician must be taught the necessity for early recognition and surgical correction of all such pathology and, with proper operative procedure and post-operative care, he will see many remote and serious complications disappear.

Diagnosis and Treatment

The Treatment of General Paresis by Inoculation of Malaria

Dr. Wagner-Jauregg, Chief of the Psychiatric Clinic in Vienna, says that in the summer of 1917 we inoculated some general paresics from a soldier ill with malaria whose disease was established by clinical observation and microscopic findings as tertian malaria. From these patients we inoculated others, nine cases in all. The effect of this treatment in the six cases not very far advanced, was a plainly favorable one. Three of them today, four years after the treatment was concluded, are still actively and efficiently at work.

This experience caused him to make the attempt again in September, 1919, to treat general paresis by inoculation of tertian malaria, and since then to use this method continuously.

The first infection followed upon transmission from a patient with a tertian malaria never previously treated with quinine. First a paretic was inoculated from this case, and then again one paretic from the other, so that he has treated in all more than 200 cases.

The method of inoculation consisted in taking the blood from the vein of a paretic during an attack of fever and immediately injecting the same unchanged in the quantity of 1-4 cc. subcutaneously under the skin of the back of another paretic. Besides, he rubs some drops of malarial blood upon scarifications produced on the upper arm as in smallpox vaccination. This method, the only one employed in the first experiments in 1917, had shown itself also effective. Recently, furthermore, he has become convinced that it is not necessary to withdraw the blood for inoculation during the attack of fever, but that the blood taken in the interval between two attacks of fever is equally effective.

Attacks of malaria appeared after an incubation period which lasted in the experiments so far made 36 days as a maximum, 6 days as a minimum. In the attacks the temperature very often rose to between 40-41° C.

It began in typical manner with rigor and ended with outbreak of sweating. But already in the stage of incubation before the first typical malarial attacks there appeared moderate elevation of temperature in most cases in irregular sequence, or often indeed according to the tertian type, these manifestations of fever being connected with no noteworthy discomfort, still less with rigor and sweating.

In few cases was the inoculation without result, and often then a second inoculation was successful. Still he has to record a few cases which remained refractory with three or four inoculations, even when larger quantities of blood from two patients with fever were given at the same time. It seems, therefore, that there are individuals who are immune to tertian malaria, at least in the form of this inoculated malaria.

The course of the attack was a very variable one. Cases in which the attacks of the tertian type remained during the entire course of the treatment were in the minority. Frequently the attacks which began as tertian soon passed over into a quotidian type, or from the beginning the fever set in as quotidian, eventually to proceed as tertian. Not infrequently the attacks ceased spontaneously after some had run their course, appearing again afresh after some days without fever. If the attacks were delayed too long a fresh attempt was made to call them forth by some means of provocation, the best of which proved itself to be a subcutaneous injection of nucleinate of sodium, which usually succeeded.

As a rule Wagner permitted the patients to pass through eight or nine attacks. Only in cases which tolerated the fever very well did he wait for 10-12 attacks. Then the malaria was checked by quinine treatment, the patients receiving for three days, twice a day, 0.5, and for 14 days, once a day, 0.5 quinine bisulphate. Often an attenuated attack of fever still appeared on the first day of the treatment by quinine. Usually, however, the patients remained completely free from fever from the first day of quinine on. Beside the treatment by quinine and continued beyond this the patients received also neo-salvarsan injections intravenously and as a rule six injections in doses of 0.3, 0.45, 4 x 0.6, at one week intervals.

This inoculated malaria showed itself much more sensitive toward quinine than the natural malaria caused by the sting of the anopheles. The plasmodia disappeared completely from the blood after the first effective dose of quinine. Recovery from the malaria was always complete. The fever could never afterward be called forth by provocative means, and in no case has there been so far a return of malaria. The mildness of this inoculation malaria may be explained thus, that the plasmodia which always reproduce themselves only in the asexual way are less capable of resistance. Further, one finds abundant plasmodia in the blood of our paretics with fever but only few gametes. Dr. Busson of the Serotherapeutic Institute was also of the im-

pression on examining the blood of our patients that their plasmodia carry much less pigment than the plasmodia of the anopheles malaria. Perhaps also something is to be attributed to the fact that the plasmodia of our stock had no opportunity to form a defense against quinin before their transmission. The case from which the author's stock arose had never had quinin before the obtaining of the inoculating material. And the further inoculation was of course always carried out before the patient had had quinin.

He gave attention, therefore, to a second stock which he introduced in the clinic. The blood should come from a malarial patient not yet treated with quinin. He recommends that weight should be laid likewise upon this factor in following these experiments. The results of this treatment were the best that Wagner had ever seen up to that time in any treatment of general paresis. In cases in which the disease is not of long duration one can predict with a fair degree of certainty that there will be complete remission. This comes to pass chiefly where the illness is of a not too long duration, less often where the disease picture is a severe one. We have seen complete remissions not only in cases of beginning dementia but also in states of severe maniacal excitement with delusions of grandeur and delirium as well as in paralytic attacks.

Complete remission occurred in more than 50 of the paretics selected for treatment so far. They were not only capable of taking up their occupations but for the most part are actually at work at their former calling. This result is so much the more gratifying since so far a return of the condition has not occurred in a single one of these completely remitted cases. It may also be pointed out in regard to the durability of these remissions that all three paretics from the year 1917 still today, more than four years, are at work in their calling without any hindrance.

The maximum of the improvement does not manifest itself at once at the end of the period of fever but does later. On the contrary the improvement continues often for a long period so that in many cases the result seemed to be an incomplete one where later however a complete remission came to pass. A striking improvement of the general condition is ushered in in most cases at the same time that the symptoms of the paretic disease recede. This shows itself in increase in weight, blooming complexion, feeling of health. It was established in some cases that a former diminished or obliterated potency had become normal again. Two symptoms may be specially mentioned among those by which the improvement through this treatment revealed itself, i.e., disturbances of speech and the epileptiform attacks. Even severe disturbances of speech have disappeared completely in the course of the treatment. And paretics who previously had frequent paralytic attacks became for the most part permanently free from these attacks even when the remission otherwise was not complete.

In rare cases it was evident that when the paresis was already of long standing and well advanced attacks of fever so weakened the patient that his condition seemed serious. In such cases the malaria was arrested earlier before the scheduled number of attacks of fever was reached. A striking fact however was that which we observed in this treatment as we had already met it previously in the treatment with tuberculin and typhus vaccine. The treatment had only a negligible influence upon the serum and fluid reactions. The blood and C. S. F. Wassermann reaction was tested quantitatively in each case before treatment and at its completion. Further the globulin and general albumin content of the C. S. F. and the number of lymphocytes in the fluid were observed. Only in a few cases could there be established an influence upon the reactions worth mentioning. Particularly no distinction in this regard could be noticed between the cases in which the most complete remission had taken place and those in which every improvement was wanting. These reactions therefore have indeed a great diagnostic significance but no prognostic importance.

Treatment of general paresis by malaria according to Wagner's experience gives by far the most favorable results of all the methods of treatment of this disease. Unfortunately this can be carried out, at least up to the present, only under definite presupposed conditions. The malarial virus so far cannot be cultivated outside the body and also cannot be kept for a long time outside the body. So this treatment has to assume that some one suffering from malaria is on the spot where paretics are to be treated. This one difficulty it is true may be overcome by bringing a malarial patient to the place where paretics are to be treated or by bringing a paretic to the place where there are malarial patients. Beside when one has once inoculated a paretic one can inoculate other paretics from him and so establish a malarial stock and further cultivate it. But the latter presupposes again a large supply of paretics such as would be found only in psychiatric clinics in large cities or in large insane asylums. For otherwise the malaria is perhaps brought to recovery in the inoculated paretic before a further paretic appears

for inoculation. The established stock perishes and so the difficulty begins again. Yet where the treatment by malaria cannot be carried out one should still carry out the treatment with tuberculin-mercury or that with typhus vaccine-mercury. Above all one must see to it that the paretics are brought to treatment in the earliest stages possible. This is the most important condition upon which the result depends.—(*Jour. Ner. & Ment. Dis.*, May, 1922.)

Bismuth in the Treatment of Syphilis

A letter from Geneva discussing this subject says several salts of bismuth have been essayed, but it has been found that tartro-bismuthate of sodium and potassium is at the same time the least toxic and the most active. It is white, insoluble powder, to be used only as intramuscular injections suspended in an oily vehicle. It must never be given subcutaneously or intravenously. The ampoule containing the bismuth in oil must be shaken vigorously for some time in order to obtain a complete suspension of the salt. It is then quickly drawn in the syringe, the needle having been previously planted in the muscular mass of the buttock. The needle should be of large caliber and at least two and a half inches long. As the drug is not tolerated intravenously, one should be sure that the needle has not entered a vein before injecting. The injection is given slowly. The immediate reaction is trifling. The injections are at first given every second day in the dose of 20 centigrams, or every third day in the dose of 30 centigrams. Afterward they are given every fourth, fifth or sixth day, or less frequently should stomatitis or a blue line on the gums develop. The total amount of the salt given in a series of injections should be from 2 to 2.5 grams in the space of three weeks to one month. In these doses the activity of the drug is unquestionable and rapid. Fournier and Guénou, who have had the largest and longest experience, found that the treponema disappeared in the chancre after the first injection, but more frequently after the second. The primary lesion heals in from six to twenty days, according to its size. The treponema also disappears from the lymphnodes.

The action of the bismuth salt on the secondary manifestations is likewise very powerful. The treponema rapidly disappears from the lesions and the headache, osteocopic pain, etc., subside in patients who resist the action of mercury or the arsenical salts. Bismuth acts favorably in the tertiary period, and in one case of lingual leucoplasia the lesion notably decreased, although it did not disappear entirely.

Fournier and Guénou have observed no general reaction and only a very tolerable local pain following the injections; stomatitis is less serious than that caused by mercury. On the other hand, Emery and Morin, who have also had considerable experience with the drug, are rather reserved as to the local and general tolerance, as well as the therapeutic activity, particularly when compared with the arsenic preparations. All observers have noted local pain occurring soon after the injection, and this attains its maximum on the following day. It is never insignificant and may be very severe. Stomatitis is also met with. It is frequent and develops after the blue line on the gums has appeared, which is a warning that saturation of the organism has taken place. But it may develop without any prodromes. It is to be treated by the local application of a 1 per cent. solution of methylene blue and one of the arsenical preparations in powder dusted on. General complications are less common. In one case gastrointestinal disturbances developed with mild jaundice and a stomatitis, with a temperature of 101.2° F.

All things considered, bismuth is distinctly and often rapidly active and specific. However, Emery and Morin believe that, in the secondary and tertiary phases of syphilis, its action on Wassermann is less rapid and decisive than that of arsenic. They also believe that bismuth is more potent than mercury, even when the most active salts of the latter drug are used, such as calomel, or the cyanide given intravenously. Its usefulness is evident in patients who resist the action of the arsenical compounds or the salts of mercury. Such is the consensus of opinion today; perhaps tomorrow improvements will be made in the bismuth salt that will change our ideas in respect to the drug.—(*Med. Rec.*, April, 1922.)

Neosalvarsan for Toxic Amblyopia.

Suker, of Chicago, reports three cases treated with neosalvarsan with improvement in each case. These cases all had negative Wassermann's, and had been treated previously with potassium iodide with no results. The beneficial results in these cases he thought were due to two factors. First, the relief of pressure by repeated spinal punctures; second, the seemingly chemical antidote of the arsenic and its action as a nerve stimulant.—(*Amer. Jour. of Ophthal.*, May, 1922.)

The Early Manifestations and Rational Treatment of Tabes Dorsalis

Henry F. Stoll summarizes this extensive discussion of tabes dorsalis by saying that: 1. It is generally believed that infection of the nervous system takes place very early during the secondary stage, at the time of maximum spirochetal mobilization. 2. While it has been estimated that 25 per cent. of poorly treated syphilitics subsequently develop syphilis of the nervous system, less than 3 per cent. of cases treated intensively during their primary stage show changes in the spinal fluid at the end of treatment. 3. A spinal fluid examination should be advised at the conclusion of the second series of arsphenamin treatments; it is imperative in all Wassermann-fast cases. 4. A complete history is of the utmost importance in detecting early cases; next to darting pains, bladder symptoms, especially unconscious distention, appear to be of special importance. 5. The pupils may be normal, the deep reflexes present, yet the symptoms may be due to early meningeal changes about the posterior nerve roots. 6. Arsphenamin intravenously, with mercury and iodides, will prove sufficient in many cases, especially the early ones. 7. When the symptomatic or serologic response to intravenous treatment is unsatisfactory, or when a grave cardiovascular lesion coexists and makes frequent intravenous treatments hazardous, intraspinal should be instituted. 8. Serious results are more liable to follow repeated series of intravenous injections than properly administered intraspinal treatments. 9. The amount of treatment should not be determined solely by the Wassermann test, the general condition of the patient is deserving of more consideration than it often receives.

In concluding, the author states that the rational treatment of tabes should include not only antisyphilitic remedies but the employment of all the known means of raising the patient's general health.—(*Am. Jour. Med. Sci.*, May, 1922.)

Jaundice in the New Born

Sir Humphry Rolleston, president of the Royal College of Physicians, says the physiological jaundice of the new born becomes obvious on the second or third day of life as the red color of the skin fades; it seldom persists for more than ten days, and is so symptomless that no treatment is necessary. There are, however, some points of interest about it; rather various estimates of its incidence—from 30 upwards to 100 per cent.—have been given, but the higher incidence must be regarded as either unusual or the outcome of very meticulous observation, and an average of about 50 per cent. would probably be most nearly correct. The explanation of this idiopathic or simple jaundice, which is also called icterus neonatorum *par excellence*, has varied less with the shifting hypothesis of jaundice in general than have the views about most other forms of jaundice not associated with gross mechanical obstruction; for the occurrence of the polycythemia at birth and the probable subsequent hemolysis have often suggested that the jaundice is hemolytic rather than caused by an obstruction inside the liver, such as might be due to edema of the liver-tissues from engorgement or to the presence of viscid bile in the small intrahepatic ducts, the result of the advent of large quantities of liberated hemoglobin. The absence of bile pigment in the urine, its presence in the feces, and the comparatively slight pigmentation of the skin show a resemblance to hemolytic jaundice. Further, the recent method of van den Bergh, namely, testing the blood-serum by Ehrlich's diazo reagent, has shown that the bilirubin in the blood-serum in cases of simple jaundice of the new born is the same as that present in hemolytic jaundice, and differs from the bilirubin present in the blood-serum of obstructive jaundice. This test should prove to be of great value in distinguishing clinically between the really obstructive and the hemolytic forms of jaundice. The important practical point about physiological jaundice of the new born is its diagnosis from the grave forms of jaundice in the new born.

In grave familial jaundice the disease may be hereditary and is definitely familial, but is less prone to attack the first and second born than the later children in the families affected. It resembles physiological jaundice in the anatomical condition found after death, especially in the selective staining of the lenticular and other nuclei in the brain ("kernicterus"), and clinically in the early onset of a febrile jaundice, the presence of bile in the feces, and the frequency with which bile pigment is absent from the urine. It was indeed regarded by Pfannestiel, one of the first to describe it, as an intensive form of physiological jaundice of the new born. The prognosis, however, is very different, for out of 130 collected cases, 100, or 77 per cent., proved fatal; whereas physiological jaundice is by definition harmless. The history of other cases in the family is at present the surest guide, at any rate until drowsiness becomes well-marked. In a few cases there has been grave anemia combined with the jaundice, and hepatic and splenic enlargement, but these are either complicated by some additional factor, or examples of a different

disease. Two rare sequels may be mentioned: a green color of the teeth, and cerebral diplegia. As regards treatment, acting on the assumption that grave familial jaundice is due to maternal toxemia, pregnant mothers of previous infants dead of jaundice have been treated with biliary and intestinal antiseptics, namely, hexamine, salicylate of sodium, minute doses (1/20 gr.) of calomel, and hydragryum cum creta. This has been successful or, to speak more cautiously, at least followed by freedom of the infant from jaundice in a number of cases. For the curative treatment of the jaundiced infants feeding by the mother's milk should be discontinued, and minute doses of calomel may be given. Dr. Herbert Williamson has allowed the author to mention two cases, the details of which he will publish later, of recovery of infants with grave familial jaundice after the hypodermic injection of 5 c.c. of horse-serum daily until 20 c.c. had been given; both these were in families in which previous infants had died of similar jaundice.

Congenital obliteration of the bile ducts is accompanied by definitely obstructive and progressive jaundice, hepatic and splenic enlargement, and in the later stages by hemorrhages. The rare condition of syphilitic stenosis of the common bile duct presents much the same clinical picture with the exception that there are other signs or evidence, such as a positive Wassermann, of syphilis which is not an etiological factor in congenital obliteration of the bile-ducts. Uncomplicated congenital syphilis is seldom accompanied by jaundice, unless secondary infection of the liver occurs.

Infection spreading from the umbilicus, the skin, or from the intestine in the new born is extremely fatal from septicemia. Jaundice appears later than in the other forms, about the fifth day of life, and is febrile.

Chronic hemolytic jaundice may be congenital, and at first closely resembles physiological jaundice, both in its manifestations and favorable prognosis. In exceptional instances, it has been reported to be associated with congenital syphilis. Acute yellow atrophy, rare at any age, is particularly so in the new born, but an acute secondary infection of the liver of congenital syphilis giving rise to the changes of acute atrophy has been recorded.—(*The Practitioner*, July, 1922.)

The Modern Medical Treatment of Gastric Ulcer

Conlin thus classifies the cases of peptic ulcer amenable to medical treatment: (1) those without perforation, (2) those without perigastric abscesses, (3) those in which secondary carcinoma is definitely excluded, (4) those without hour-glass or other serious deformity, (5) those without a history of severe hemorrhage, and (6) those without organic pyloric obstruction.

Many types of medical treatment have been advocated. Leube placed the patient in bed on a milk diet for fourteen days. Lenhart advised protein food to combat the acidity and build up the body strength. Sippy's treatment consists in the protection of the ulcer from the gastric juice until healing takes place.

Malnutrition of the gastric mucosa causes a loss of the normal resistance to the pepsin which has been permeated by the hydrochloric acid. This can be prevented by neutralization of the gastric secretion by frequent feedings, and by the use of alkalis, sodium, calcium, and magnesium carbonate. Excessive nausea and vomiting may be combated by duodenal feeding with the Einhorn tube. According to Freidenwald, this method gives relief in 86 per cent of cases.

Frank Smithies has called attention to the fact that in 35 to 40 per cent of cases the acidity is within the normal limits, and that in a number of cases of hyperacidity there is no pain. Carlson states that in all probability the gastric pain is due to increased tension of the walls of the stomach due to increased intragastric pressure. This has been demonstrated fluoroscopically by Carman at the Mayo Clinic. Friedman states that: (1) there are typical ulcer pains after ulcers have been healed, leaving only scars; (2) there are typical pains in achylia gastrica; and (3) clinical improvement may occur with complete disappearance of pain and persistent hyperacidity. He concludes that hyperacidity is a result, and not a cause, of ulcer.

Smithies states that carbohydrates do not unite with hydrochloric acid, and the free acid causes relaxation of the pyloric sphincter. Proteins unite with the acid and hence cause delayed sphincter relaxation and an increase of 50 per cent in the gastric secretion; the stomach is therefore subjected to more intense peristaltic activity without pyloric relaxation. His treatment, which is based on these physiological facts, consists of:

1. Rest for three weeks.
2. Local applications to the abdomen.
3. Fasting for the first twenty-four to forty-eight hours. During this time the patient is allowed to chew paraffin wax and is given by rectum 500 to 1,000 calories of a nutrient mixture consisting of 1 oz. to 50 per cent alcohol and 1 oz. of glucose with the addition of normal salt solution to make 240 c.cm.

An ulcer may be considered healed when long freedom from symptoms is associated with normal gastric function, the absence of blood in the stools, the X-ray demonstration of a complete change in the ulcer, and normal peristalsis without spasm or hour-glass deformity.

Most of the failures in the treatment of gastric ulcer are due to failure to keep the patient under observation and to protect the stomach from irritation. Repeated X-ray and stool examinations should be made.—*Neb. S. Med. Jour.*, July, 1922.

Lafferty and Phillips Radiotherapy of Diseased Tonsils

Fifty cases of diseased tonsils treated by Lafferty and Phillips, fell roughly into four classes, as follows:

1. Those of adults with large, soft hyperplastic tonsils with deep crypts which generally discharged or tained pus.
2. Those of children: with large, infected tonsils, and crypts generally not so deep.
3. Those of adults who had had their tonsils, or at least a part of them, removed and who retained a part of the tonsil with scar tissue.
4. Those of adults and children who had had the tonsils completely removed and who presented infected and enlarged lymph follicles in the pharynx.

The first class of cases are those which show the most decided improvement following x-ray treatment, following W. D. Withers' technique. The tonsils shrink rapidly, the crypts can be seen standing wide open, and the cultures show a marked decrease in the number of bacteria. Of this type there were twenty-nine cases. In five of these, attacks of tonsillitis ceased after one treatment, and in three after two treatments. In the remaining twenty-one cases an average of five treatments was given. The results were satisfactory. Cases of Class 2 also responded favorably. Of the eleven cases treated, ten showed perfect results and in the eleventh the treatment was not completed. The average number of treatments given was 6.2. Of the four cases which belonged to Class 3, all were benefited; the average number of treatments was eight. Class 4 included six cases, all of which apparently showed good results although the effect did not appear quite so quickly as in some of the other cases.

In the same issue A. J. Pacini describes the x-ray treatment of tonsils with the conjoint use of the Ultraviolet Ray. In children he finds there are three types of tonsillar conditions:

1. Those in which the tonsils are obviously hypertrophied, but are not excessively reddened, and the appearance of which suggests minimal bacterial activity.
2. Those in which an obvious reddening is present, suggesting bacterial activity below the point of clinically established infection.
3. Those in which the tonsils are markedly reddened and congested and infection is clinically established as evidenced by the associated systemic manifestations.

Cases of Type 1 are especially suited for roentgen therapy as recommended by Withers. The effect of the treatment is manifested by a reduction in the size of the tonsil. In cases of Type 2, the roentgen ray applied alone was not as uniformly successful in those of Type 1. It was necessary to supplement it by treatment to overcome the infection. The ultraviolet ray was found to meet this indication well. It was applied directly to the tonsil through a pharyngeal applicator in units of actinic saturation, usually on alternating days but in the more severe infections daily. Cases of Type 3 generally require surgical intervention.

Since the active immunizing types, grouped above as Type 2, are observed clinically by far the most frequently, it is obvious that the ultraviolet ray plays an important role in the treatment of tonsillar disease. The indications are plain, the application is simple, and the results obtained through the conjoint use of the roentgen and ultraviolet rays on hypertrophied tonsils are eminently brilliant and deserve every consideration.—*Jour. Rad.*, March, 1922.

The "Miracle" of Milk in Ocular Therapy

Fradkine makes a logical enquiry as to the biological mechanism of the milk treatment, the sum and substance of which is that "the milk miracle is explained solely by the fact that one introduces into the serum of the organism a rich quantity of alexines which shall destroy the microbes, already sensitized by their specific fixation agent. It is not, in fact, a question of a specific medicament for a given race of microbes, but of an aspecific substance, alexina, which is wonderfully active on any kind of bacterial element. . . . Possibly the special advantage of milk lies precisely in its great richness in alexines."—*Brit. Jour. of Ophthalm.*, March, 1922).

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What Is Wrong?

Once upon a time the profession chose its own successors—selected them deliberately, if you please. Now the unqualified son of the tailor votes himself into the fold, via one of the unspeakable factories yclept universities.

We said unqualified advisedly. Our typical student is qualified insofar as educational requirements are concerned. Yes, but in no other respect.

The trouble with the man who was picked from a whole community under the old preceptor system—if you wish to call it trouble—was that very frequently he had all the qualifications except the degree of education now insisted upon.

Neither system can be called ideal, but the older one produced far better practitioners because they were better men—a selected class; an aristocracy, if you will. The men of to-day cannot be called a selected class simply because of their better education, since they "butt in" and are not summoned.

Formerly, the practitioner picked for his alma mater, as he had been picked himself, boys intimately known to him, and found to be worthy of the caduceus. They might have been the sons of tailors or of magnates or of laborers. A high degree of education was not the prime requisite; if the right kind of boy had acquired it, so much the better, but the wrong kind of boy, no matter what his education, would never be summoned.

To-day, education is *practically* the sole criterion of fitness to enter the profession, and the wrong kind of boys are swarming in. This state of affairs is most unfair to the unfit boys themselves who succeed in getting in, and criminally unjust to the good boys who are crowded out.

The evil of the situation is recognized clearly enough on all sides. We know exactly what is wrong. Can anything be done to save the situation?

The very first thing to do, we should say, would be to free ourselves from the malign influence of the doctrinaires and Brahmins who have bedeviled us in this matter of qualifications. So long as there are well educated boys of character in the country who can meet all the requirements, and so long as we as physicians meet and know such boys just as our professional progenitors did, let us capture these boys for the service. Each one captured will displace one of the other kind.

There are enough of the men with understanding of this problem left to start something.

It would be wise, obviously, to make twenty years in practice a condition of preceptorship, so as to minimize the influence of those bred under the vicious modern system. Then, of course, every prospective student would have to have a preceptor, just as in the old days. The number of students that a preceptor could sponsor would be graded according to the number of his years in practice—the fewer the number of years the fewer the number of students, which would furnish another means of minimizing the modern influence.

It is not too late. Let the schools nominate such preceptors. Make preceptorship an institution in a more real sense than it ever was before. Let a preceptor be an actual officer of his college, a member of a Preceptorial Senate. Give him some reason to hold his college in special regard and to serve its interests while it honors him.

It is the only way out of a disgusting mess. What sound solution can there be other than selection based upon personal knowledge? And who can be the repositories of this knowledge save the older practitioners of the country.

The passage of a very few years would make the proposed plan impracticable, for obvious reasons.

The Mind of One Reformer

Professor Irving Fisher will be recalled as one of the leading health insurance propagandists. As illustrating his type of mind, and the manner in which it works, we have seen nothing better than a letter in the New York Times written by Mr. Whidden Graham. Health insurance is only one of the many irons which Professor Fisher has in the fire. Another hobby of his is reforming the currency. He wants to stabilize the dollar by increasing or decreasing the amount of gold in it, according to circumstances. Mr. Graham says it is a fine scheme, but at the same time he would like to make arrangements with the Weather Bureau so that when it is cold we could raise the temperature by putting a little more mercury in a standard thermometer, and when it is hot, reduce the temperature by taking a little out.

To this Professor Fisher has attempted to reply (*Free-man*, September 6) by citing the function of the thermostat, which stabilizes the weather, so to speak, inside of a building.

Doubtless the Professor will continue to stabilize the dollar and the health of the people inside of his head. He is a great little social thermostat himself.

About Face!

Some years ago the maintenance of tuberculosis wards in general hospitals was frowned upon. Now the private hospital failing to maintain such a ward is condemned as not meeting its obligations.

We recall a hospital in Brooklyn—Saint Peter's—which took especial pains to maintain its entire top floor

as a tuberculosis department at a time when no other general hospital maintained a single tuberculosis bed. In the course of time a great institution was erected at Woodhaven—Saint Anthony's—which enormously expanded the work formerly done at Saint Peter's.

This desirable development was doubtless in part the result of the old and now discarded attitude. It is not to be regretted, for vastly more patients are now cared for at Saint Anthony's. But the expense and effort to which Saint Peter's was put was in the nature of a penalization for being in advance of its contemporaries, and insofar was an injustice. That the hospital made such penalization the occasion for a splendid special foundation reveals an uncommon degree of energy and inspiration.

Let us see now how much of such a spirit animates the institutions that are merely being asked to open special tuberculosis wards.

The Toll of Service

The silent reaper has an apparently uncanny way of striking down our great men at the very pinnacle of their endeavors—Northcliffe, Cecil Rhodes, Joseph Chamberlain, President Wilson. It seems that the acme of human success is usually purchased at great physical cost. Why this is so is patent enough to medical men. There is nothing uncanny about it. The elements in the situation are highly materialistic. The factors making for the breakdown of our Titans are well understood today and while their ruthlessness and inevitableness can be mitigated the strains ultimately conquer. Mr. Lloyd George appears to defy the physical fates as he defies political annihilation, but observers say that even he reveals a growing tendency to court the easy chair and My Lady Nicotine, which may be an evil omen or a sign of hygienic sanity, depending upon his particular constitution.

Standardization

Why is it that the same men who detest socialism will accept standardization in principle and practice? If standardization means anything it means a soft pedaling upon individualism. From either a philosophic or a practical standpoint there is no essential difference to be distinguished between the principles of economic and political standardization and those of scientific standardization. In the one case you are supposed to create a sample citizen who will function, cog-like, with exactly similar fellow citizens, within very definite, prescribed limits, and who, in return for this stereotyped service, will be insured against idleness, ignorance and penury by the State. In the other case you are supposed to create a sample surgeon, an automaton who can be depended upon to function competently, just like all his fellow surgeons, within prescribed limits, and who will be insured against distinguished achievements by the American College of Surgeons.

All these gentry ought to embrace socialism naturally and affectionately.

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Miscellany

CONDUCTED BY ARTHUR C. JACOBSON, M. D.

Which Psychological Inheritance Is Morbid?

In Ode I, Book I, Horace alludes to "the wars that mothers hate": *Multos castra iuvant et lituo tubae permixtus sonitus bellaque matribus detestata.*

Therefore there must have been pacifists even in those days, for a boy's attitude toward the arbitrament of force is determined very largely by the psychology of his mother, the chief mold of the young child.

The sons of war-hating mothers are in the same boat as the sons of conventional mothers, in the sense that they are the products of their mothers' psychology, and therefore they should be judged dispassionately, at least in times of peace. These same pacifists, had they been born to more conventional parentage, would have worn war crosses instead of stripes.

The idea that there is necessarily something yellow in all young pacifists is not tenable from the psychological standpoint.

"We are such stuff as dreams are made of"—the dreams of our mothers more than of our fathers, in matters pertaining to human strife.

If it is a crime to be the sons of gentlewomen, the men who expressed a wholesale scepticism about the war for which they are still rotting in Federal jails are guilty indeed.

A Method for Anchoring Radium in Carcinoma of the Rectum.

J. Rawson Pennington, of Chicago, in addressing the American Proctologic Society, said that, in carcinoma of the rectum and pelvic colon, the usual method of applying radium is on a flexible probe, but that by this method one has no means of knowing whether or not the radium is well within the mass or simply impinging against it; and that even if one succeeds in locating it well within the growth he has no assurance that it will remain where the destructive action is desired, since peristaltic waves and sphincter contractions may change the position. To overcome these objections, in case the case to which he referred, he passed a beaded seton through the colostomy opening, pelvic colon, rectum and beyond the anus. The beads perforated were buckshot placed four inches apart, since that was the distance from the verge of the anus to the nearest edge of the growth. The radium was attached to the seton, and, by manipulating this, it was easy to locate the radium in the carcinomatous mass and maintain it there without inconvenience to the patient. This method keeps the radium in contact with the growth and does not preclude the use of radium needles. The writer applies the same principle in carcinoma higher up in the colon, a cecostomy first being done, and then the seton being passed through the entire colon and rectum. He cautioned that both ends of the radium container must be fastened to the seton, which must not be removed until the treatment is finished.

(Concluded from page 255)

Conclusions

1. It is evident that the mortality in the so-called degenerative diseases is steadily increasing.
2. Health surveys show almost 1/3 of those sick and disabled are so because of these diseases.
3. Health surveys show that 28 per cent. of those sick and disabled have been in such condition for one year or more.
4. From 10 to 12 per cent. of individuals with physical impairment necessitating medical advice are not aware of their condition.
5. The economic loss from morbidity and mortality in these diseases is enormous.
6. By periodic medical examination with appropriate advice and treatment the mortality from the degenerative diseases can be postponed.

BIBLIOGRAPHY

1. U. S. Census Bureau Reports.
2. Dublin, Louis I., "The Incidence of Heart Disease in Adults"—N. Y. Medical Journal, April 10, 1920.
3. N. Y. State Dept. of Health, Records of Division of Vital Statistics.
4. Frankel, Lee K., and Dublin, Louis I., "Some Recent Morbidity Data".
5. Rogers, Oscar H., and Hunter, Arthur, "Heart Murmurs, and Their Influence on Mortality"—Transactions Actuarial Society of America, May, 1919, pp. 83-100.
6. Fisk, Eugene Lyman—"Preventable Diseases of Adult Life"—N. Y. State Journal of Medicine, Dec., 1921.
7. Fisher, J. W., "The Diagnostic Value of the Use of the Sphygmomanometer in Examinations for Life Insurance, Proceedings of Life Insurance Directors, Oct. 4, 1911, p. 393-97, Medical Record, N. Y., Oct. 21, 1911, p. 818-20.

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(Concluded from page 259)

but it is attempting to bring about an era of good feeling between the insurance carriers and the physicians. The company that persists in taking a patient from his attending doctor and compels him to go to another will be frowned upon to such an extent that it will become a pariah. There was a conference of the insurance companies last summer with the people who have to deal with bringing about better conditions. I would not have you get the impression that we are attempting to change the rules in regard to liability, but I believe we can, with the aid of the medical profession and that of the insurance companies who have expressed their willingness to back it, bring about an agreement among them that cases will not be lifted, and the company that does not come in will stand an outcast.

The injured employer has no right of suit in court except that he be injured by the negligence or wrong of some one not in the same employ. If a man is on his employer's business and is injured by some one not in the same employ, in that case his right of suit is preserved to him. If he prefers compensation, the employer has the right to bring suit to reimburse for the compensation he pays his employee. As to the second question, the employer has the right of appeal from any award or decision of the Commission to the appellate division of the Supreme Court. I think the subject has been pretty well discussed this evening, and I have very little further to add. There is much that may well be said and much evidence that I have not put before you. Perhaps it is not in keeping to sum up on the whole case unless all the evidence is before the jury. I may say, however, that the proposition that the injured workman be given the right under the supervision of the Industrial Commission to have his own physician treat him, does not meet with my approval. I do not believe that the injured workman will be better off by being given the unbridled right to go for treatment to whom ever he will, subject only to the supervision of some administrative body. Is the medical profession prepared to submit its every act to the supervision of such a body? I have attempted for one and a half years to ascertain from Dr. Delphey and others who have suggested this proposition what they mean by medical supervision by the Commission. I have been told that it means that a man may select his own physician until the Commission says he must go to another doctor, and the Commission must give its reasons for ordering such change of physicians. If the Commission declares a doctor may not treat a man because of incompetency, it has to prove that the doctor is incompetent before the Supreme Court, and instead of litigation regarding compensation the Commission will soon be doing nothing but defending itself in court, or else there will be no supervision. If you make charges against a physician that he is incompetent to treat an injured workman, he has the right to insist on being heard in his own defense. So I say that I do not believe

that this question of free selection of the physician with the supervision of an administrative body will work out in this great city. I have seen innumerable cases where the physician has been incompetent, but can you satisfy a court or jury that the treatment is incompetent? Long before you get before a jury the condition may have cleared up, the wound have healed, and all you can get an examining doctor to say is that he finds no evidence of disability. I do not believe that in this city with its doctors drawn from every sphere and every country, doctors who cannot even speak English, and we are to give these insured workmen the right to go to these men without any control, that will make for an improvement in the work. Until it is shown that the injured workman is suffering under the present system, or until the medical profession takes steps to rid itself of its incompetent members who are alleged to practice medicine, but who are actually practicing fraud, until that is done the injured workman ought not to have the free selection of his physician.

A New Non-Narcotic Drug Which is Both Hypnotic and Analgesic.

Dr. M. A. Burns, of the Clinic of Prof. Francis X. Dercum, Jefferson Medical College Hospital, Philadelphia, where the new drug, allonal, was first investigated, in a paper under the above title, read before the Philadelphia Neurological Society, February 24, 1922, gives convincing clinical data as to the strong analgesic power as well as prompt hypnotic action produced by allonal. Cases are described in which administration of morphine would hitherto have been regular practice; other cases in which morphine had been used without results; in all these cases the oral administration of two tablets, followed only in a few instances by a repetition of that dose an hour or two later, quickly relieved pain and produced sleep without any noticeable after effects.

Dr. Burns quoted twelve cases of his own (comprising multiple neuritis, rheumatoid arthritis, melancholia with drug addiction, traumatic hysteria, tabetic pains); six cases of Dr. Frank Wrights, of Northwestern University Medical School, Chicago, (comprising chronic pancreatitis and colitis; carcinoma of the rectum with a colostomy, chronic colitis, arteriosclerosis with chronic cholecystitis); cases of Dr. Leopold Stieglitz, Beth Moses Hospital, New York, (of intercostal neuralgia and of inoperable hypernephroma of the kidney); and a case (tic douloureux) of Dr. A. C. Messmer, Ardmore, Pa., and concludes:

"The unpleasant by-effects familiar with the other hypnotics were absent.

"There is no effect on respiration, nor any apparent depressant action on the circulation.

"From the experiences quoted, it seems safe to conclude that the new drug is a remedy of real value for controlling insomnia and pain, and that it will enable us to get along with less of the narcotic pain-allaying remedies. It worked better than morphine in many cases, and in others better even than morphine and hyoscin together."—(*New York Med. Jour.*, April 19, 1922.)

Presence of C. Botulinum in Milk

Graham, Swartz and Boynton in preliminary evidence herein reported suggest that *C. botulinum* may, under certain experimental conditions, gain entrance to the milk via the animal host. The negative results in examining milk from experimental animals during the ten-day period preceding the feeding of toxin and spores obviously suggest that the avenues of invasion are related to the contaminated rations, while the part played by a contaminated soil or other extraneous fomites is not excluded.

The presence of the spore in fresh milk for immediate consumption is probably of no toxicogenic significance to the human family, if the negative results in guinea-pigs, following injection of fresh milk contaminated with spores, are a reliable guide. However, an experimental teat canal or udder infection was repeatedly transmitted in the milk, as demonstrated in guinea-pigs and possibly in calves. The production of minimum amounts of toxin in the udder could not, however, be demonstrated. The mammary secretion of an artificially infected udder proved positive to *C. botulinum* for several days, following the initial infection. The presence of free toxin in milk filtrate from an infected udder was suggested in only one instance. Repeated examinations failed to demonstrate free toxin in other milk samples from infected udders. In view of the negative results in guinea pigs, the possibility of *C. botulinum* toxin being excreted in the milk of lactating animals consuming contaminated feed is remote, though the contamination of milk from feces or other sources is not to be disregarded, since milk furnishes a favorable medium for the development of toxin *in vitro*.—(*Am. Jour. Pub. Health*, Aug., 1922.)

Correspondence

The Compensation of C. S. Practitioners

To the Editor of the Medical Times:

May I again request the courtesy of your columns to correct certain erroneous statements contained in a letter of Dr. Wilson G. Bailey, appearing in your issue of July. If the Doctor will refer to my letter published in your June number, he will find that I did not compare Christian Science practitioners to Jesus, but I did say that the Doctor's tender of and evident conviction that a purely material recompense could tempt those who are relying wholly upon God to reward and direct their efforts, brought to mind the experience of the Master, as recited in the Fourth Chapter of Matthew. Obviously this is quite different from his statement to the effect that I irreverently put practitioners of this Science on a level with Jesus. Certainly no body of religionists in the world has a greater respect and a deeper reverence for Christ Jesus and his works than Christian Scientists.

This is indicated by the fact that they unqualifiedly accept his promises and believe even as he taught that those who understand his doctrine will be able to do his works. There is perhaps no point on which Mrs. Eddy, the discoverer and founder of Christian Science, has laid greater stress than the necessity to accept and respect Jesus and his teachings. In this connection she has stated most clearly on page 497 of "Science and Health with Key to the Scriptures," "we acknowledge that man is saved through Christ, through Truth, Life, and Love, as demonstrated by the Galilean Prophet in healing the sick and overcoming sin and death."

It also seems that our critic is considerably perturbed over the fact that practitioners of Christian Science receive pay for their time and effort. He evidently forgets that it was no less an authority than Jesus himself who said, "The laborer is worthy of his hire." Moreover, it should be remembered that Christian Science practitioners, like members of the medical profession, find it necessary to maintain a suitable office and home for the convenience of themselves and their patients; and inasmuch as no practitioner listed in "The Christian Science Journal," the official organ of The Mother Church, The First Church of Christ, Scientist, in Boston, Mass., is permitted to actively engage in any form of business, it is generally conceded that those who turn to such practitioners for help should pay a reasonable fee for services rendered. As a matter of actual experience, it has been found that those who are able invariably insist upon paying, and those who are not are never turned away.

I may here add that no student of Christian Science worthy of the name would deliberately enter into this practice solely for the purpose of financial gain. On the other hand, I know many successful professional and business men and women, including doctors, ministers, and lawyers, who have made substantial sacrifices for no other reason than to show their gratitude for the healing that has come to them through Christian Science, and to help others acquire a practical and demonstrable understanding of its teachings and practice. I have little doubt as to the doctor's sincerity of purpose in attacking that which he conceives to be Christian Science, and if it were what he believes it to be I, too, would strenuously oppose it; but fortunately he is mistaken in his view, and some day, somehow, he will come into a better understanding of this Science of Christianity by means of which the sick and sinful are being healed of all manner of diseases now as in Jesus' time through an absolute faith, as Mrs. Eddy tells us, that "all things are possible to God, a spiritual understanding of Him, an unselfed love" (Science and Health, page 1).

CHARLES E. HEITMAN,
Christian Science Committee on Publication.

Botulism.

To the Editor of THE MEDICAL TIMES:

A contributor to THE MEDICAL TIMES notes the loose use of the term "botulism," quoting Gould's Medical Dictionary to the effect that it is specifically confined to sausage poisoning.

The term was rejected from the first edition of Gould's Medical Dictionary, published in 1890, as ill-formed and not always correctly used. The term "botulinic acid" was incorporated, however, with the provision "alleged to be an acid," etc. This term is properly formed, but I strongly suspect that the substance itself belongs among the alkaloids.

The term "botulism" was incorporated in Gould's Medical Dictionary, edition of 1895—I think with a mental protest on the part of the author; for he was possessed of a wholesome knowledge of etymology. There was not then and there is now not the slightest use for the term "botulism" in any sense whatever. The term "allantiasis," from *allas*, a sausage, has been in use for

more than half a century. It is both a properly and a logically formed word. Its meaning has not been perverted.

Perhaps the fact that "allantois," having the same derivation, is used with altogether a different meaning, might be considered a sufficient reason for proscribing "allantiasis." Nevertheless, it is not an argument for the use of "botulism," a term which is an unpleasant reflection upon medical knowledge.

The practice of designating the ptomaine poisons by names which denote their origin is more useful than the application of a chemical term. "Allantotoxin" and "tyotoxin" imply the meaning and the origin of the substance as well.

If a score of newspaper writers were asked the meaning of "botulism" nineteen would declare it to be "ptomaine poisoning from eating canned goods." And the twentieth would be the writer whose knowledge came by accident rather than by intent.—A NEWSPAPER WRITER.

Surgery

A System of Applying Local Anesthesia

While one might profitably spend the time allotted in a discussion of the advantages of local anesthesia, I shall refer to this phase of the subject but briefly and consider more at length the application of local anesthesia to major surgery. It is admitted, Robert Emmett Farr believes, that local anesthesia is safer than any other form of anesthesia. Even in the hands of the untrained it offers advantages from the standpoint of safety that general anesthesia in the hands of experts can not provide. In the hands of experts local anesthesia is exceedingly safe.

The most important difference of opinion in relation to the use of local anesthesia hinges upon the efficiency with which it may be used and the efficiency with which complicated operations may be performed under its influence. It is to this phase of the subject that I wish especially to refer.

Incidentally the by-product of local anesthesia, comfort, while of minor importance is worthy of consideration, other factors being equal.

The percentage of operations which a surgeon may find himself prepared to perform under local anesthesia will depend largely upon his training and equipment, and possibly somewhat upon his temperament.

His success will depend largely upon three factors: first, the technic of the application of local anesthesia; second, upon the application of a surgical technic compatible with the use of local anesthesia; and third, upon his willingness to give heed to the special attention which is every patient's due in looking after the minor details which govern the comfort of the patient during his sojourn in the hospital.

It is an established fact, Farr thinks, that novocain in weak solution may be used in sufficient quantity to thoroughly interrupt the nerve supply to any operative field with comparative safety to the patient. The establishment of anesthesia then depends upon one's ability to reach the nerve supply of the parts. In the case of the cerebrospinal nervous system the nerve supply may be reached by a direct infiltration or by conduction anesthesia. The sympathetic system, situated as it is, is somewhat more difficult to reach. The ideal method of interrupting the cerebrospinal nerves is, of course, at or near their origin, and had not this method certain disadvantages it would be the method of choice. However, intraspinal anesthesia, paravertebral anesthesia, and other forms of nerve block requiring much skill and experience will long remain in the hands of the experts. Practical local anesthesia on the other hand, as exemplified by infiltration and infiltration block, lends itself quite readily to the use of the surgeon with but a moderate amount of training in the art of local anesthesia and this form of anesthesia is perhaps destined to become the most widely accepted.

The various methods of inducing local anesthesia have reached a comparatively high plane of perfection. The development of a surgical technic which is compatible with the use of local anesthesia has made slower progress, and its use will in the future depend much more upon the development of such a technic than upon the improvement in local anesthesia methods. A surgical strategy must be developed which will enable one to perform surgical operations with efficiency under the local anesthesia methods which are available today. The greatest problem relates to intraperitoneal surgery and in no field is the dictum laid down above more true than when working within the abdominal cavity.—*Ill. Med. Jour., Aug., 1922.*

Congenital Dislocation of the Hip

H. A. T. Fairbank, of London, believes it should not be necessary to call attention to the importance of diagnosing this condition early so that treatment may be adopted at the best possible age, but one still finds cases in which a correct diagnosis has not been made, in spite of earlier examinations, until the age of six or more. In a bilateral case it is then too late to do anything, while in a unilateral case the chances of anything approaching a perfect cure are small. Whenever a limp or waddling gait is present in a child who has recently learnt to walk, congenital dislocation should always be suspected. A radiogram is essential in every doubtful case.

The best age at which to operate is from eighteen months to three years; at this age three out of four dislocated hips ought to be permanently cured with a prospect of the joint, years after reduction, being very nearly, or even quite, normal. The prospect of cure in a unilateral case after six years of age has dropped from 75 per cent. to 28 per cent., while the chance of the bones developing to anything approaching those on the normal side is small. The waddle in a bilateral congenital dislocation is simulated by the gait in a rarer deformity, viz.:

Infantile coxa vara is a very grave progressive deformity, more often bilateral than unilateral; it is a more crippling condition than dislocation. Although there are other points of difference, the final diagnosis depends on the position of the heads of the femora. In coxa vara the head is in the acetabulum; in dislocation it is not, and, moreover, it can be felt outside the acetabulum. Radiograms of this form of coxa vara show a translucent line crossing the neck of the femur, this line joining the epiphyseal line above but being separate from it below. In course of time the head lies relatively lower and lower, while the neck gradually gets shorter. It is of the greatest importance, therefore, that an early diagnosis should be made. These children should be taken off their feet at once. The best treatment consists in osteotomy below the trochanter and wide abduction of the legs, weight extension being also applied; after union the legs are brought down parallel to one another, and the child allowed to get about in caliper splints. The alteration in the direction of weight-bearing strain is such that the deformity should no longer increase, and in fact union between the two portions of the neck is said to occur.

In the adolescent type of coxa vara, it is again of prime importance that an early diagnosis should be made, for correction of the deformity is only possible if proper treatment is adopted sufficiently early. It affects older children—those in their early teens. It is this type which is mistaken for tubercle because it is associated with traumatic arthritis which renders the hip stiff, but there is usually no fixed flexion, which is always a definite feature in acute tuberculous arthritis, and no abduction, while the leg is held in decided external rotation. The trochanter is raised and prominent, the limb is shortened. A radiogram shows the head apparently slipping off the neck of the femur, the solution of continuity in these cases taking place at the epiphyseal line. By weight extension plus abduction, gradually increased to the extreme limit, with internal rotation of the limb, the parts can be restored to their normal position, provided this treatment is carried out while the head is still slipping. When the head has united on to the neck in the faulty position this re-position is impossible.

Much has been written about another affection of the hip which is now distinguishable from tubercle, namely, *pseudo-coxalgia*. In this condition, in which a history of limping is given, examination commonly reveals surprising freedom of active and passive flexion with pronounced limitation of abduction and only occasionally general rigidity. X-rays show flattening of the ossific centre for the head of the femur with irregularity in density or even fragmentation of this mass of bone. There are also seen thickening and, sometimes, other changes in the neck of the femur. The diagnosis, which always finally depends on the radiogram, has to be made more particularly from tubercle of the acetabulum or neck of the femur without, as yet, involvement of the joint proper. A painful limp is always present in these tuberculous cases, while it is much less commonly found in *pseudo-coxalgia*, which is often surprisingly painless. Although available evidence seems to point to this affection being of an infective inflammatory nature, its true pathology is still obscure. We must look to the practitioner for help in obtaining radiograms in the earliest stages; so many of the cases are not subjected to x-ray examination until the limp has lasted many months, particularly in those cases devoid of pain.—(*The Practitioner*, July, 1922.)

An Analysis of the End-Results in 232 Hysteromyectomies, with Special Reference to Ovarian Conservation.

J. G. Clark and C. C. Norris make the following analysis on 232 patients operated for supravaginal hysteromyectomy more than one year ago. None of them had reached the menopause. Both ovaries were conserved in ninety cases, one ovary was removed in eighty-one, and both ovaries were removed in sixty-one. From the replies to a questionnaire sent the patients the following conclusions are drawn:

1. Hysteromyectomy gives excellent end-results whether ovarian conservation is practiced or not. Of all the patients in this series, over 99.5 per cent were cured or benefited and over 83 per cent stated that their general health was good or improved one year or more after the operation.

2. Better end-results and greater comfort are obtained by ovarian conservation.

3. Everything being equal, better end-results follow conservation of both ovaries than the retention of one, but the preservation of one is far better than the removal of both.

4. Conserved ovaries seldom give subsequent trouble. In none of these cases was a second operation necessary.

5. Undue emphasis has been placed on the frequency of cystic and other forms of degeneration in conserved ovaries. This can be avoided by careful examination of the ovaries at operation and attention to the maintenance of an adequate blood supply and retention of the ovary in its proper position.

6. Since good results can be obtained following bilateral oophorectomy, it is better to sacrifice a doubtful ovary than to conserve it.

7. The surgical menopause is not severe in all cases in which both ovaries are removed. The patients who suffer unduly are in the minority.

8. Other factors being equal, there is no doubt that younger women suffer more severely from bilateral oophorectomy than those who are older, but age is not an unfailing criterion as to the severity of the surgical menopause in a given case.

9. The high-strung neurotic woman is apt to suffer more severely than the woman of the phlegmatic type.

10. Conserved ovaries functionate.

11. Even when the ovary does not functionate permanently, the occurrence of the surgical menopause is less abrupt and severe than in women upon whom a bilateral oophorectomy has been performed. In the former class of cases the artificial menopause generally resembles the normal menopause more closely than that following the removal of both ovaries.—*Surg., Gyn. and Obst.*, July, 1922.

Duodenal Ulcer

The first part of the normal duodenum or the cap is visualized as a smooth, rounded, triangular shadow, says H. B. Magee. Its relation to the stomach, gall bladder, and liver varies with the type and position of the patient and the size and shape of the stomach and liver. Seventy-five per cent. of all duodenal ulcers occur in the first portion or the cap. A constant filling defect in the duodenal cap means a pathological condition. This may be due to ulcer, adhesions due to cholecystitis, or both, or an anatomical variation such as pressure from adjacent organs. Spasm may produce extensive changes in the shape of the cap, but this is usually reflex from a lesion of the gall bladder or appendix. While commonly single, there may be a companion or kissing ulcer on the opposite wall, or there may be multiple ulcers.

With proper technique an ulcer which is more than a simple mucous erosion should be demonstrated on the roentgen plate. The demonstration of a normal cap rules out chronic indurated or surgical ulcer. There is one type of duodenal ulcer which is easily overlooked and which seems to have a different character from the classical ulcer. These ulcers show a broad punched out callus defect with extensive induration, but merely a pin point defect on the mucosal surface, with some mucous membrane heaped about them.

The roentgen appearance of chronic duodenal ulcer often-times seems exaggerated compared with the operative findings. First, because the duodenal wall is thin, its mucous membrane is smooth and granular compared with that of the stomach, and consequently the deforming effects of ulcer callus, cicatrix, periduodenitis, spastic incisure, or spasm, are more pronounced. And second, the roentgen plate shows the duodenum full and distended, while at operation it is seen collapsed.

Adhesions from a pathological gall bladder may deform the duodenum and simulate an ulcer. The differentiation is often-times difficult, but usually it can be made. Where one finds a combination of ulcer of the duodenum and adhesions, one cannot always say whether the deformity in the duodenum is due to ulcer or adhesions or due to both. In such a case it is sufficient to pass an opinion that a surgical lesion exists. In simple adhesions no matter how extensive, the deformity of the duodenum is greater at the beginning of the examination and gradually lessens as the stomach empties. Effort should be made to carry out the technique over a period of an hour at least, using all positions, but one should not change from one position to the other without an effort being made in any one position for a reasonable length of time.

In the obstructive types of duodenal ulcer where the duodenum is obliterated to such an extent that it cannot be visualized, we have to rely upon indirect signs for our diagnosis, and these are, first, gastric hyper-peristalsis (meaning three or more waves

running along the stomach at one time), second, gastric retention from the six hour barium meal. The combination of hyperperistalsis and gastric retention and a normal stomach outline is diagnostic of duodenal ulcer with obstruction.—(*Ill. Med. Jour.*, Aug., 1922).

Traumatic Asphyxia

Thomas M. Green, of Wilmington, N. C., feels that traumatic asphyxia is one of the most remarkable conditions we are ever called upon to witness.

This condition is brought about by compression of the chest and abdomen over an extended period of time, causing a suspension of the respiratory function is a rather rare condition.

It was described first by Olliver, later by Tardieu, and then by Hardy, who first observed the condition in victims of panics who were crushed in the efforts of the crowd to leave a building or a very crowded area. The color of the skin becomes a dark red to purple, and the discoloration may be discrete or confluent, covering the face and neck, extending sometimes as far down as the third rib on the chest. On the posterior surface the discoloration may extend down to a line across the shoulders at the level of the lower border of the trapezius muscles, producing the so-called "double trapezius triangle." Sometimes the discoloration is shown on the arms. Subconjunctival hemorrhages are common to all cases, while hemorrhages from the nose, mouth, and ears frequently occur. Other common points of discoloration are the pleura, pericardium, and abdominal viscera. These latter places are the sight of punctate ecchymoses in all types of suffocation. The blood is dark and venous with increased fluidity, due to the exclusion of atmospheric oxygen. Other symptoms frequently accompanying the condition are unconsciousness, brief or prolonged, respiratory or cardiac depression, pulmonary engorgement associated with râles and bloody expectorations. Convulsions are not uncommon and occur not only with resumption of consciousness, but during several days following. We must remember that in this type of asphyxiation we are not only dealing with the withholding of air from the lungs, but that the venous blood in the large veins of the thorax, neck, and head has been forced backward into the capillaries of the skin by the compression of the chest and abdomen, thus producing an intense discoloration of the skin. Huerter in explaining this discoloration thought that it was due either (1) to the extreme distention and rupture of the vessels of the skin of the face and neck from the sudden upward pressure; or (2) that the pressure on the abdominal and thoracic sympathetic nerves produces vasomotor paralysis, which results in the distention of the vessels with blood. The treatment of the condition consists in the use of stimulants, applications of oxygen and artificial respiration. Ruppner finds that most cases that recover consciousness from the original injury go on to complete recovery. Many show the so-called "contusion pneumonia" about the third day. He finds the prognosis should be guarded as to vision, since optic nerve atrophy and opaque patches of the macula have been reported. Parker reported optic atrophy produced by traumatic asphyxia. In his analysis of a number of cases he finds the pupils often fail to respond to light. Longe also notes this.

The case in question is that of a male, 38 years of age, by occupation a pipe fitter, who had previously done some diving while in the Navy. Subsequently, after an accident at the local shipyard, he offered to go down in a diving suit and ascertain the damage to one of the vessels. For some reason, while at a depth of 37 feet, his air connection became interfered with for a period of 10 minutes and when taken out of the diving suit he showed the characteristic appearance of traumatic asphyxia. He was never unconscious; was having small hemorrhages from the mucous membrane of the eyes, nose, mouth, and rectum. Respiratory function was very shallow and irregular, but improved immediately with artificial respiration and oxygen. His mentality seemed to be normal after the accident. His face was swollen and markedly discolored. The discoloration went as low as the third rib in front and on the back outlined the double triangle formed by the trapezius muscles. This discoloration began at the margin of the hair as a deep red and gradually merged into a dark purple. It disappeared rapidly and was practically all gone at the end of the fourth day, except the eyes which faded very much more slowly. He was discharged from the hospital at the end of the fifth day. There was never any permanent disability as a result of the accident. The pressure on his body through a diving suit at a depth of 37 feet would be about 18½ pounds to the square inch. The helmet was rigid and prevented this pressure from being exerted on his neck and head, so the forces acting were similar to squeezing of the abdomen and lower thorax for a similar length of time, and technically called a "squeeze" by divers.

Eighteen other cases are found in literature which manifested the skin discoloration and other symptoms in a more or less degree.—(*Surg. Gyn. & Obst.*, Aug., 1922.)

The Diagnosis and Treatment of Tuberculous Empyema

In a large proportion of cases, primary or idiopathic pleurisy with effusion is probably tuberculous in nature, says C. A. Hedblom. A history of pleurisy with effusion is common in cases of tuberculous empyema. In many instances the effusion is serous at the onset. Tuberculous pleurisy may be primary or secondary to a pulmonary, peritoneal, or other tuberculous lesion.

The onset of a tuberculous effusion may be insidious or sudden and associated with an acute and severe constitutional reaction. A mixed pleural infection due to the perforation of a tuberculous cavitation often runs an acute and rapidly fatal course. The diagnosis of tuberculous empyema is made by the demonstration of the bacilli in the exudate, by animal inoculation, or by examination of the sectional pleura. A sterile effusion is probably tuberculous. An infected effusion may be tuberculous. Empyema may be tuberculous in spite of persistently negative findings over a long period of time. In a closed pleural cavity a sterile effusion, whether serous or purulent, should not be treated by open drainage except in the presence of an impending perforation of the chest wall. Repeat aspiration of only part of the fluid is indicated in cases of serous effusion producing definite dyspnoea on exertion of symptoms of circulatory embarrassment.

The replacing of aspirated fluid by nitrogen or filtered air may be indicated in cases in which there are symptoms of active phthisis refractory to the same side as the effusion. A sterile purulent effusion should be treated as though it were serous if the lung expands when fluid is withdrawn. If the lung is fixed in a collapsed condition or if the effusion persistently recurs, an extrapleural plastic operation is indicated.

Effusion in a closed cavity showing a mixed infection should be treated by the closed method with antiseptic irrigation, or by open drainage; open drainage is indicated especially in cases of severe infection associated with extensive pulmonary tuberculosis making irrigation hazardous. Tuberculous empyema with a large bronchial fistula should be drained by the open method. A large tuberculous empyema with mixed infection from a previous drainage operation or from spontaneous perforation of the chest wall requires a plastic operation, preferably following treatment with Dakin's solution. In cases of associated large bronchial fistula a plastic operation involving closure of a bronchus offers the only prospect of cure. Irrigation with Dakin's solution may be contra-indicated in the presence of an extensively diseased lung because of its corroding action on superficial lesions which might result in hemorrhage or the formation of a bronchial fistula.

When the empyema is of long standing a plastic operation is usually required eventually in cases of closed cavities and all large, open, secondarily infected cavities. For the collapse of closed sterile cavities an extrapleural rib resection is indicated. The Boiffin-Wilms operation is especially suitable for the collapse of large cavities without excessive thickening of the parietal pleura or rib deformity.

For the obliteration of relatively small cavities a skin or skin and muscle plastic is indicated. Cases of long standing with greatly thickened pleura require extensive resection of the entire chest wall after the method of Schede. Operation in several stages is indicated especially in the treatment of tuberculous empyema, and if practicable, should be preceded by antiseptic irrigation. Such treatment should extend the indications for operation and lower the postoperative mortality.—(*Surg. Gyn. & Obst.*, July, 1922.)

An Aseptic Local Anesthesia as Applied to the Anal Region, with Special Reference to Anesthetic Composition

Edward G. Martin, of Detroit, Mich., described to the American Proctologic Society an anaesthesia technic which he thinks meets the usual objections to local anaesthesia, offers aseptis, speed, and safety without distorting the surgical field, and shows that novocain is safe in greater quantities and stronger percentage than is usually used. His solution, as used in series of 150 cases, consists of novocain, 2 per cent.; adrenalin (1-1,000), 1 per cent., and antipyrin, 1 per cent. He believes that the last ingredient hastens the profoundness of the anaesthesia somewhat prolongs it. Preliminary hypodermics of morphin gr. 1/6 and hyoscin hydrobromide gr. 1/200 are given one hour and a half before operation, and the patient is placed on the right side with fully flexed knees, etc. Through an iodized area behind the anus a 2½ in., 20 gauge needle is introduced, and from there the injection is commenced and continued. Without withdrawing the needle the superficial structures on each side of the anus to the anterior commissure are anaesthetized, and then the deep nerve areas on each side are blocked by passing the needle at different angles. The test of insufficient anaesthesia is complaint of pain during the latter part of the deep injection. From 2 to 4 oz. are used in each case without distortion, and the writer has found complete and profound anaesthesia within 2 minutes and the field ready for any type of operation.

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it is difficult to give fat in sufficient amounts to satisfy the nutritive needs; therefore, it is necessary to meet this emergency by substituting some other energy-giving food element. Carbohydrates in the form of maltose and dextrins in the proportion that is found in

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are especially adapted to the requirements, for such carbohydrates are readily assimilated and at once furnish heat and energy so greatly needed by these poorly nourished infants.

The method of preparing the diet and suggestions for meeting individual conditions sent to physicians upon request.

Mellin's Food Company,

Boston, Mass.

Infant Death Rate Declines in Buffalo

At the request of Health Commissioner Fronczak, of Buffalo, the Division of Vital Statistics of the New York State Department of Health has made a special preliminary report on the infant mortality of Buffalo. This study was also undertaken because of its bearing upon the state wide campaign for saving the lives of mothers and babies, as inaugurated by the Department under the provisions of the Davenport-Moore Act, which was passed by the Legislature and approved by Governor Miller last March.

According to this report, as prepared by Dr. Otto R. Eichel, Director of the Division of Vital Statistics, the death rate from preventable causes under one year of age has declined in Buffalo from 140 deaths for each 1,000 births in 1900 to 62 in 1919. During the same period the rate from diseases classed as non-preventable has remained practically stationary. Infant deaths considered in this analysis as non-preventable included those caused by organic heart diseases, syphilis, congenital malformations and debility, premature birth, and injuries at birth.

In this favorable showing the infant mortality of Buffalo corresponds closely to that of New York, which has one of the best records in this respect of any large city in the world. In both cases the infant death rate from preventable causes shows about the same average annual ratio of decrease since 1900, while the rate from non-preventable causes has remained stationary. It is noteworthy that in Buffalo the rate from non-preventable causes is at a slightly lower level in the decade since 1910, as compared with the previous ten year period.

A further point of interest brought out by Dr. Eichel's report is that the infant mortality of Buffalo, New York City and New Zealand has declined at about the same annual ratio of decrease in all three areas during the 21 years from 1900-1920, having, in fact, declined at a slightly faster ratio in both New York City and Buffalo during the second decade than it did in New Zealand. But the New Zealand rate is at a very much lower level than in either New York or Buffalo, and will henceforth probably decline much more slowly as it reaches that stage in which a rapidly increasing proportion of the infant mortality is from non-preventable causes. At present over 56 per cent. of the infant mortality in New Zealand is non-preventable and about 44 per cent. in Buffalo. New Zealand has long been noted for its low rate of infant mortality. The infant mortality from preventable and non-preventable causes combined, which constitutes the usual infant mortality rate, declined in New York City from 203 in the year 1900 to 71 in the year 1921. During the same period of 21 years the rate in Buffalo declined from 187 to 93. Therefore, although the rate in New York City was at a higher point in the earlier years than in Buffalo, it has declined to a lower level. The rate in New Zealand has always been at a much lower level, having declined from 75 in 1900 to 51 in 1920.

This inquiry into the Buffalo infant mortality involved computing and charting the mortality under one year of age from each cause for each year from 1900 to 1919 for Buffalo and also for New York City to make possible comparison with the latter as a standard. This study is intended to be only a first step in a thorough analysis of the mortality of Buffalo for use by the State and local health departments in formulating their programs.

Arsenic—Mercury

While the cure of syphilis involves the destruction of the spirochete, it is not to be inferred that the disease is incurable, even when the best spirocheticide fails. It is frequently impossible to administer arsphenamine in quantity sufficient to put an end to the infection; and it now appears that oft-repeated doses may render the spirochete arsenic-fast—that is, immune to the destructive effect of the arsenic. When this occurs, a continuation of the arsphenamine treatment alone cannot be said to be good practice. On the other hand, to intermit all treatment until the arsenic-fast organisms lose their immunity would be to give the infection a new lease of life.

No one can question the value of mercury in syphilis, and this is the occasion for its use in the most direct and effective manner. A mercurial that can be given freely and with a minimum of disturbance to the patient is certain to command professional attention. Parke, Davis & Co.'s Mercurosal is said to meet these requirements. It is administered intravenously in a dose of 1½ grains (0.1 gm.) or intramuscularly in a dose of ¾ grain (0.05 gm.). The first of the two methods mentioned is recommended on account of the larger dose and the blandness of the effect of the Mercurosal upon the blood-vessel walls. There is no corrosive action, no phlebitis, no thrombosis, no pain.

Clinically, Mercurosal is said to be capable of clearing up the ulcerations, chancres, nodules and other visible manifestations of syphilis with great promptness. It is not offered as a substitute for arsphenamine, but as an auxiliary anti-syphilitic agent.

"Meltzer-Lyon" Test in Gall-Bladder Disease

Cutler and Newton are of the opinion that interest in this procedure as an aid in both the diagnosis and treatment of biliary conditions has become widespread. Already it has reached the hands of the general practitioner, and in spite of the difficulty of carrying through its correct performance is in actual practice by a large number of doctors. This is exceptional in a profession usually conservative and leads one to think that the many careful studies already reported, which seem to show that the knowledge the test may give is unreliable, are not generally recognized. It is possible also that the strong psychic appeal any such a procedure must awaken in a patient has led doctors as well as patients into a false sense as to the real physical good this manoeuvre can give.

Following the above discussion, it is the authors' opinion that there is much to be proven before the so-called "Meltzer-Lyon" test can be accepted as of value in aiding diagnosis, that it should still be considered as only in an experimental stage, and its use should be discouraged by any except those who are qualified and equipped to study and criticize its value. It is by no means a simple test. Should one grant all that Lyon claims for it, to be exact, it requires x-ray apparatus, much time, repeated examinations on all cases, and elaborate bacteriological and cytological studies. The test depends upon the law of contrary innervation which must be proven before the test is accepted. At the present time the evidence would seem to show that syphonage is the principle factor in the defection of bile into the duodenum. Exactly what determines the intensity of the color of the bile remains a question. In their opinion dark bile comes from the gall bladder, and this accords with the recent work of Rous and McMasters and Harer, Hargis, and Van Meter on the concentrating ability of the gall bladder. We have never found real dark bile in cholecystectomized cases. However, the contentions of Einhorn and Meyer that the dark color is due to re-excretion of the salt or to destruction of red cells in the liver with the production of excess iron or the belief of Bassler, Luckett, and Lutz that such color is due to an increase in the amount of oxidase must bear further study.

The authors' experience has left them with the distinct impression that the test is not of dependable diagnostic aid. The lack of unanimity in the results obtained by different investigators is the best proof of the unreliable status of this test at the present time.—(*Surg., Gyn. & Obst.*, Aug., 1922.)

The Antiseptic of Today

Chlorazene is gradually taking the place of phenol, bichloride, and other antiseptics use since the tallow candle days. Those doctors who are not now using the newer chlorine-carrying antiseptic are usually such as have never heard of it or given thought to its advantages. For certainly nobody, knowing the facts, would continue to employ the older antiseptics from preference.

The facts can be summed up in a sentence which is this: Chlorazene combines the utmost efficiency (against infecting organisms) with the greatest degree of safety (to the person using it). It may be entrusted to patients. It is safe to have about in the house. And yet, it is up to 50 times more powerful than phenol, depending on the infecting organism against which it is used.

The Abbott Laboratories, Chicago, supply handy tablets for making solution. A sample tube may be had by writing this firm.

Foreign Bodies in the Rectum

John D. Stewart, of New York, told the American Proctologic Society that one of the most interesting developments in the profession was the gradual process of specialization in medicine and surgery, and that it is only recently that such attention has been given to diseases of the rectum, and justifiably so because every proctologist knows how many cases come to him with pronounced rectal disorders, which have been overlooked in previous physical examination. The importance of thorough rectal diagnosis is thus shown and one is led to the discovery of conditions not necessarily located in the anal canal, and among these are foreign bodies introduced accidentally or intentionally. He considered the local effects arising from these, the possible absorption from them, and consequent remote and sometimes grave effects. He further considered the character of such bodies, including parasites and their influence in producing sex perversion, and foreign bodies caused by accident. They are intentionally introduced usually for the relief of pain; for the stimulation of sensation (as sex perversion); or for criminal purposes (as smuggling). The writer gave a resume of findings and cases of prominent proctologists, and co-incidentally made suggestions as to treatment and methods and means of removing such foreign bodies.

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A reliable oxytocic, indicated in surgical shock and post partum hemorrhage, and after abdominal operations to restore peristalsis.

Suprarenalin Solution

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Water-white, stable. In 1-oz. bottles, with cup stopper. Of much service in minor surgery. E.E.N. and T. work.

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A Non-Poisonous, Unirritating Antiseptic Solution



Agreeable and satisfactory alike to the Physician, Surgeon, Nurse and Patient. Listerine has a wide field of usefulness and its unvarying quality assures like results under like conditions.

As a wash and dressing for wounds

As a deodorizing, antiseptic lotion

As a gargle

As a mouth-wash dentifrice

Operative or accidental wounds heal rapidly under a Listerine dressing, as its action does not interfere with the natural reparative processes.

The freedom of Listerine from possibility of poisonous effect is a distinct advantage, and especially so when the preparation is prescribed for employment in the home.

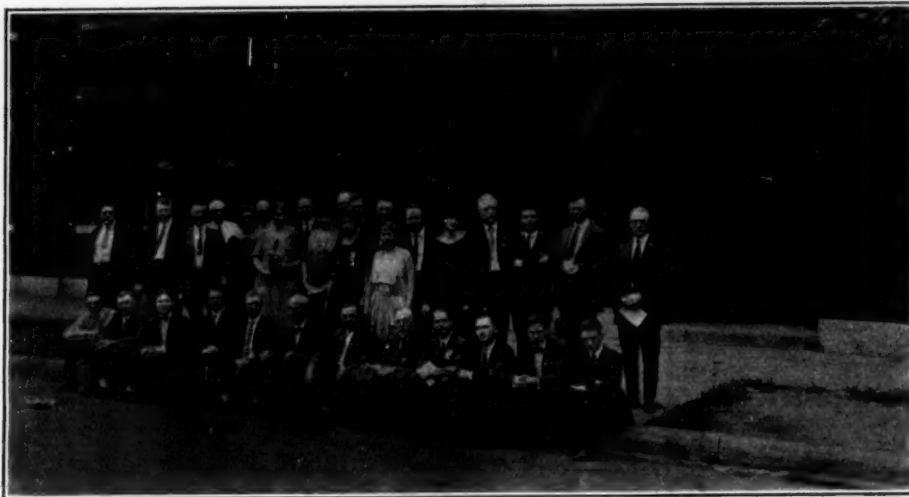
LAMBERT PHARMACAL COMPANY

ST. LOUIS, MO., U. S. A.

McIntosh Post Graduate Class

Thirty-five doctors gathered at the salesroom of the McIntosh Electrical Corporation, Chicago, September 4th to 9th, to attend a class in Electro-Therapy, conducted by Homer Clark Bennett, M. D., with the co-operation of Drs. T. Howard Plank, S. F.

etc.; Sinusoidalization, Surging Waves for Paralysis, Ptosis, Splanchnic Torpor and Intestinal Stasis, Universalnology, Polysinology, Technical Demonstrations; Special Clinics and Demonstrations in Electro-Coagulation and Actino-Therapy at the American Hospital, 850 Irving Park Blvd.; Hifrex Modes, Os-



Casenburg, Noble M. Eberhart, Mel R. Waggoner, Jacob Faltermayer and C. M. Deem.

The illustration shows how they felt during a little recess when they gathered in front of the building to be photographed. The course embodied the following:

Elementary Principles, Fundamental Laws, Electro-Physics, Chemism, Galvanic Generation, Control, Measurement, Induction, Magnetic, Faradic, Electrolysis, Phoresis, Ionization, Model Demonstrations, etc.; Electro-Physiology, Catalysis, Polar and Inter-polar Effects on Circulation and Nutrition, Surging Wave, Super-Imposed Waves, Clinical and Model Demonstrations, etc.; Demonstrations of the Pelvicultimode for the treatment of disease of the Pelvic Viscera by a combination of physical measures including sinusoidal current, Bier's Hyperemia, moist heat,

cillatory, Tesla, d'Arsonval, Oudin, Diathermy, Dessication Fulguration, Twenty Important effects analyzed, Uses in Blemishes, Benign and Malignant Growths, Demonstrations, etc.; Photo and Chromo Therapy; Special Lectures and Demonstrations of High Frequency Currents.

Owing to the great demand for this instruction on the part of the medical profession, Dr. Bennett has consented to repeat this course and same will be given in Detroit, Mich., November 20th, 25th, 1922, the place to be announced later. Only a limited number may be enrolled so that each may enjoy the benefit of personal instruction. Any physicians who are interested in securing full details regarding the course may write to the McIntosh Electrical Corporation.

The company maintains a display room and service station at No. 405 Lexington Avenue, New York.

Physicians for Rural Districts

Whereas the population of the state of New York is increasing, the number of physicians graduated is decreasing, says Commissioner H. M. Biggs. This year there will be about 300 graduates in the state, as against 750 a year 20 years ago. Some municipalities have no practicing physician who has been in practice less than 25 years, and out of 400 municipalities there are about 250 with no physician at all. The Public Health Council has prescribed that no one shall be appointed health officer who is over 65 years of age, but a number of municipalities have no physician under that age. In some localities, particularly in the Adirondacks, there is no physician within an area of 25 miles.

The requirements to become a physician are so great, taking 8 to 10 years of study after graduation from high school, that the medical colleges have limited their number of students, and the graduates find greater returns and facilities in the large cities, leaving the rural districts with fewer physicians than in former years, and with practically the same kind of medical care that was available 25 years ago.

Repeated efforts have been made to put through a bill that would provide state aid toward the establishment of rural community hospitals, public-health laboratories, clinics and public-health nursing service, for the question of medical service for the rural communities has become more and more serious. It has an important bearing on the death-rates and the reduction of infant mortality.—(*Health News*, March, 1922.)

Oxyl-iodide in Chronic Toxemias

Chronic toxemias, resulting from foci of infection, may deplete the thyroid and suprarenal glands. These are the glands that have most control in regulating metabolism. To overcome subthyroidism and hypoadrenalism is to increase the metabolic rate.

Crile says he believes that the study of the thyroid begins and ends with iodine; that the organism is an electrochemical mech-

anism, and that iodine and increased thyroid activity alike have the power of speeding up the organism; that thyro-iodine (a substance which contains 65.1 per cent. organic iodine) sensitizes the tissues to epinephrin. The thyroid gland and suprarenals are synergists, their effects on metabolism being similar except that the suprarenals act in emergency and the thyroid acts more slowly.

Oxyl-Iodide, containing 33 per cent. iodine in organic combination with phenyl-cinchoninic acid, stimulates metabolism, promotes diuresis and increases the rate of elimination of uric acid and urea. It is somewhat analgesic and is alternative. It has proved highly beneficial in chronic arthritis, myositis and neuritis, especially in types of rheumatism heretofore unresponsive to therapy.

The average dose of Oxyl-Iodide is two 3-grain tablets taken three times daily, after meals with plenty of water. Some patients will be found who will not tolerate the iodine. If iodism results Oxyl-Iodide should be withdrawn. The average patient will tolerate the treatment, however.

Oxyl-Iodide is supplied by the Drug Trade in prescription packages of 40 tablets and in dispensing bottles of 500. Additional information will be supplied on request addressed to Eli Lilly & Co., Indianapolis, Ind.

Child Welfare in Denmark

The government of Denmark is intending to amend the child welfare laws. A committee has already prepared a bill relating to parental authority and providing for the establishment of guardianship councils and public institutions for dependent children. A provision of the bill forbids the sale of tobacco to children under fourteen years of age and prohibits children from smoking in public places. A new law permits the state to distribute annually 250,000 crowns to municipal and private agencies for the establishment of day nurseries, trade schools, and vacation colonies for school children.—(*Mother and Child*, June, 1922.)

The control of
Rheumatic Pain
 by the application of
K-Y ANALGESIC
 ("The Greaseless Anodyne")

will be found a valuable adjunct to your internal treatment. Repeat as often as necessary. Always wash off previous application

Headache
 and Neuralgia
 are relieved by the rubbing in of
K-Y ANALGESIC
 "The Greaseless Anodyne"

"A safe,
 harmless way
 that works
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In Your Bag
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At the Patient's Home
 are three places where a bottle of
SYNOL SOAP

should always be kept, assuring yourself of a thorough cleansing of your hands before and after examinations. Synol Soap is antiseptic, cleansing and emollient.

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Effective
Surgical Lubrication
 is assured by the use of
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Contains no grease, soluble in water, easily removed, does not stain the skin or clothing. Non-irritating, soothing and emollient.

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Not to use

a product that is effective in many diseases, might be called unfair to the patient.

Not to know

of its curative value is equally indefensible in the light of over 20 years of thorough clinical research and highest professional approval.

Burnham's Soluble Iodine

does not irritate the stomach and kidneys, though given in large doses and over continuous periods.

In auto-toxemia of whatever origin, and all septic processes its use means service of the most definite character.

Burnham Soluble Iodine Co.

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Alkalol Needs Only to Be Used to Convince

The only man, professional or lay, who can doubt for a moment the practical efficiency of Alkalol is the one who has not used it. Just as a man is known by performance rather than by promise, so Alkalol needs only to be used to convince even the most skeptical as to its actual efficiency.

Take, for example, a beginning coryza, which usually, in spite of treatment, runs its course. One has only to fill the Alkalol glass nasal douche with Alkalol, either pure or diluted with equal parts of water, and douche each side of the nose thoroughly, allowing some of the solution to flow into the throat, to realize how quickly and effectively this product not only relieves discomfort, but clears up the condition.

Used in the eye, when there is inflammation or irritation of the conjunctiva or cornea, Alkalol quickly demonstrates its worth. It is equally of service in the ear. It makes no difference what mucous membrane is affected. Alkalol clears up cystitis quicker than any other known agent. As a vaginal douche it is unsurpassed. It is also a most efficient wet dressing and a potent antacid when taken internally. The reasons for this are many. In the first place, Alkalol is a well balanced solution. It has the proper degree of salinity, correct alkalinity and indicated tonicity. Being hypotonic it reverses the ordinary osmotic current, as a result of which the physiological salts contained in Alkalol are made to pass into and "feed" the cells. The action of Alkalol, therefore, is to help the cells to help themselves. In other words, to make it easy for them to regain their normal secretions, which is, after all, the best antiseptic which can be used on any mucous membrane.

It costs practically no effort to address a request for sample and literature on this product which will be promptly forwarded on receipt by its makers, The Alkalol Company, Taunton, Mass.

Change in the Aorta in Syphilis

Feldmann, pathologist to the county hospital at Gyula, has devoted special attention to the study of the aorta in syphilitic cadavers.—(*Budapest Correspondent, Journal A. M. A.*, October 15, 1921.)

Gonorrhea causes 80 per cent. of all blindness in the eyes of the new-born.—LEE A. STONE, M.D.

Gallstones.

The early symptoms of gallstone disease are constipation, nausea, belching and vomiting, feeling of fullness and tenderness, and radiating pain. During this period of distress and before acute attacks of gallstone cholic set in, the disease may be greatly benefitted by treatment with Agocholan.

The primary cause of the symptoms is the precipitation of concretions in the stagnant bile. It follows that a free flow of bile must be established while the precipitated particles are still small so that a growth to actual stones cannot occur.

The object of medicinal treatment would, of course, be to stimulate the flow of the bile, regulate the bowels and relieve the feeling of discomfort and tenderness. Agocholan accomplishes this most satisfactorily. Before offering this new pharmaceutical to the medical profession, its therapeutical value had been proven by clinical investigation.

Agocholan comes in 2 grains sugar-coated tablets. Information and samples may be had upon request from E. Bilhuber, Inc., 25 West Broadway, New York City.

Malaria.

In every recent discussion of malaria the subject of the relapse phase has become of more prominence.

The Rockefeller Foundation report to the International Health Board is practically devoted to this side of the malaria problem.

Every effort to improve the treatment by modification of quinine administration has failed to diminish the importance of considering the relapse in malaria.

This subject has been ably presented in a symposium on malaria including the Rockefeller Foundation report and views of many authors in a thirty-two page book. Every physician interested should write for a copy of the symposium on malaria.

Distributed free of charge by New York Intravenous Laboratory, 100 West 21st Street, New York City.

Camper's angle (facial angle, maxillary angle), Camper's line, etc., are named for Peter Camper (1722-1789), Dutch anatomist and naturalist, born at Leiden.—(*Med. Facts.*)

Thirty-three and one-third per cent. of all insanity is caused by syphilis or its end results.—LEE A. STONE, M.D.

Well-Assimilated Iodin

SAJODIN

Pharmacological investigations show more iodine in the tissues after use of Sajodin than after that of the Iodides. Sajodin is palatable, well-tolerated, convenient, and is indicated whenever a continuous, moderate iodine effect is desired, as in

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IOTHION-OIL: Superior to tincture and ointments of iodine, readily penetrating the skin without producing irritation and staining.

How Supplied: **SAJODIN:** Tablets, 8 gr., tubes of 20; Powder in ounces
IOTHION-OIL: 1 oz. bottles



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The Principle of Adrenal Support is a Sensible, Rational Tonic

HYPOADRENIA in Tuberculosis

If you find low blood-pressure, decreased urea, sub-normal temperature and asthenia—particularly in incipient and latent cases of tuberculosis—you also have adrenal insufficiency to contend with.

We don't claim to cure Tuberculosis with Adreno-Spermin Co. (Harrower), but we do suggest that, along with other therapeutic measures, the inevitably depleted adrenals be considered.

When you consider that infectious fevers, emotional strain, fright and shock all deplete the adrenal glands, and that asthenia, hypotension and suboxidation are the results of this depletion, it is apparent that a tonic is needed that will support these played-out glands.

Repeated tests have demonstrated conclusively that by supporting the adrenals with Adreno-Spermin Co. (Harrower) you can raise a low blood-pressure in actual mm. Hg., increase elimination (24 hour urea) in grams and encourage alimentary, cardiac and general tone.

One doctor said of this formula, "People would be after it with guns if they knew its value."

Send for free booklet
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Liquid in bottles of 25 grams each.

A new treatment for Facial Neuralgia.

Chlorylen is used with marked success in the treatment of Facial Neuralgia. It has a specific action on the sensitive Trigemini, gives immediate relief and the pain disappears after a few treatments.

Chlorylen is applied by inhalation. 20 to 30 drops are placed on cotton or the handkerchief and inhaled through the nostrils until the odor disappears.

NOVARTAMIN

(Phenyl-Quinolin-Di-Carboxylic Acid)

In tablets.

Indications: Gout, Rheumatism, Neuralgia, Neuritis, etc., eliminating Uric Acid without causing gastric disturbances. No disagreeable taste.

Dose: One to two tablets three to four times after meals dissolved in a little water followed by a large glass of water.

NEUTRALON

(Synthetic Aluminum Silicate)

Indications: Hyperchlorhydria, Hypersecretion, Ulcus Ventriculi and Duodeni.

A neutral and yet neutralizing substitute for the Bismuth Salts, Sodium Bicarbonate and Silver Compounds, etc. It reacts gradually and its effect is more permanent than that of the Alkalies and of Magnesia. A white, tasteless, odorless powder.

The average dose is one teaspoonful in a glass of water, (preferably warm) a half hour before food.

VALAMIN

(Amylene-Hydrate Iso-Valeric-Ester)

In capsules.

A sedative and soporific, easily absorbed and promptly acting.

Indications: Neurasthenia, Nervous Insomnia, Hysteria, Palpitation of the Heart, etc.

Dose: As a Sedative one to two capsules, as a Hypnotic two to four capsules followed by a drink of water. In nervous insomnia two to four capsules should be taken before retiring.

For further information and literature address

KIRBACH, INC. General Agents 227-229 Fulton St., N. Y.

Doubting Thomases.

The question was asked, a short time ago, at a medical meeting, "Are we honest to ourselves and to our patients?" Which means to say that the medical profession has been more or less justly criticized for its tendency, in the attempt to be conservative—to lean so far backward as to overlook many means, more or less practical, for the relief of patients. In his attempt to be conservative, the doctor becomes skeptical. It is, of course, well to be conservatively scientific. It is, on the other hand, unfortunate for the patients, at least, for the doctor to become ultra-scientific.

Take Dionol for instance. The phenomena attending what we understand as local inflammation are well recognized, but, the underlying cause that produces the classic pain, heat, redness and swelling has only recently been explained satisfactorily. It cannot be denied that a great part of our use of drugs for medicinal agents is empirical. The successful doctor is not inclined to split hairs over the possible "this or that" of drug action. He wants results. "The proof of the pudding is the eating thereof." The doctor who uses Dionol cannot deny its action. He has to admit its efficiency. Unfortunately, there remain a large number of "doubting Thomases." To all such there is an easy opportunity to join the increasingly large number of physicians who have become steady Dionol users.

A request addressed to the Dionol Company, Detroit, Mich., will bring literature, case records, etc., that will prove well worth reading.

Dulcets Benzyl Stearate in Bronchial Asthma.

It was Macht, of the Johns Hopkins Medical School, who was studying the so-called "minor" alkaloids of opium, when he found that the benzyl esters relaxed spasm of smooth muscle. Benzyl acetate was too irritating for use and benzyl benzoate was selected for extensive trial as an antispasmodic. It was administered in oil and in alcoholic solutions and elixirs because of its irritating quality and objectionable taste and odor.

Benzyl benzoate was used in over 150 cases of bronchial spasm, or asthma. The cases treated were both adults and children, many of long standing. Benzyl benzoate proved beneficial in about seventy-five per cent. of cases. A number did not react at all.

Where the dyspnea is due to causes other than bronchial spasm the benzyl benzoate can be of little use.

Dulcets Benzyl Stearate are chocolate squares, palatable as candy, each square containing 15 grains benzy stearate. This product has the complete action of benzyl benzoate, in addition to the advantage of being odorless and tasteless. It is made only by Eli Lilly & Company.

A Comparison of the Formaldehyd-Gel Reaction of Gate and Papacostas with the Wassermann Reaction

From the Stanford Medical School, Burke describes the results of a comparison of the formaldehyd-gel test with the Wassermann test as made in the Stanford laboratory. Author concludes that the test is not so reliable as the Wassermann test with a cholesterinized antigen and water bath incubation, nor with an alcoholic extract antigen. The formaldehyd-gel test gives results in closer agreement with the negative than with the positive Wassermann tests. When the two tests disagree, a positive formaldehyd-gel diagnosis will be found to be correct in an undetermined percentage of cases; a negative formaldehyd-gel diagnosis will rarely be correct.—(*Arch. of Derm. and Syph.*, April, 1922.)

Office Care of Ano-Rectal Cases

William M. Beach, of Pittsburgh, told the American Proctologic Society that he did not wish to minimize the importance of ano-rectal disease by discussing the office care of it, but that one was often compelled to meet the demand of patients for such treatment. Proper persuasion should be used to induce those, who ought to go to the hospital, to do so. Their decision depends much on one's approach in examination. To this end are necessary suitable office equipment, quietness, painlessness, and caution in handling, no undue exposure and reassurance when the patient is nervous. The results will determine the appropriateness for office treatment; and under this head the writer considered such care of fissure, hemorrhoids, proctitis and sigmoiditis, ulcerations, constipation, etc. Finally, he said that the object of his paper was to encourage the proctologist to do more for patients in the office before resorting to radical procedures, and to elicit discussion on the more frequent, rather than on the more infrequent and obscure ano-rectal diseases.

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If imitation is the sincerest form of flattery, Anusol Suppositories have good reason to be proud.

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Let us beware of the flatterer.

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Synergistic Analgesia in Rectal Operations.

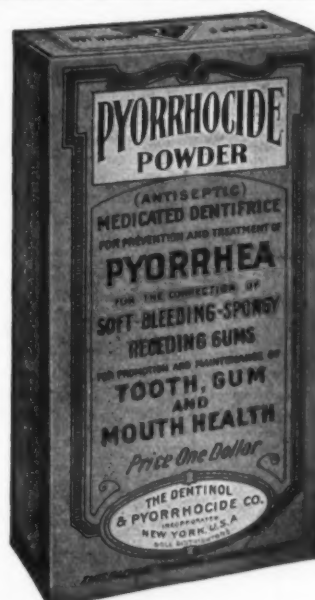
Joseph F. Saphir, of New York, told the American Proctologic Society that, although general anaesthesia is the anaesthetic of choice in rectal operations, and local anaesthesia has its field of usefulness, yet in certain cases the condition of the patient's heart, lungs or kidneys, or extensive infection, such as an ischio-rectal abscess, would not permit the conscientious rectal surgeon to operate on the patient under the influence of either. Where a general anaesthetic would be contraindicated on account of the systemic condition, and where a local anesthetic should not be used for fear of spreading infection by the use of the needle while injecting it, the writer has found it feasible and practical to use synergistic analgesia as reported by Dr. J. T. Gwathmey. He gives the patient three hypodermic injections of $\frac{1}{4}$ gr. of morphin in 10 c. c. of chemically pure and sterile 25 per cent. solution of magnesium sulphate, at twenty-five minute intervals, the last being given about half an hour before operation. In hypersensitive patients this may be supplemented with a little gas-oxygen. The patients are free from pain for a period of 12 to 30 hours after operation, and post-operative catheterization is found unnecessary. The writer then presented six case reports of patients operated on by him satisfactorily under synergistic analgesia; and finally said that, although he does not believe that this method will ever replace entirely general or local anaesthesia, he feels that in a few selected cases synergistic analgesia will frequently help the surgeon out of a dilemma.

Keratoderma Blenorrhagica.

David Lees considers this the most interesting of the cutaneous eruptions which follow gonococcal infection. He believes the number of cases now recorded, 47, would be considerably augmented if all cases of gonococcal arthritis were more closely examined. Two cases are recorded and the history, etiology, pathology, diagnosis and treatment are discussed. One case was treated successfully with vaccines. The other cases treated with usenic failed to more than temporarily clear up the clinical signs. (*Edinburgh Med Jour.*, March, 1922.)

Exophthalmic Goitre in Congenital Syphilis.

Rowstron gives case of exophthalmic goitre in a $4\frac{1}{2}$ months old child suffering from congenital syphilis. (*Brit. Med. Jour.*, March 4, 1922.)



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Facts About Cancer

The morbidity and mortality from cancer is rapidly increasing. In 1900 the death rate from tuberculosis in the United States was 202 per 100,000. At the same time it was only 63 per 100,000 from cancer.

In 1916—15 years later—the death rate from tuberculosis had decreased 29.8 per cent., while the death rate from cancer had increased 29.8 per cent.

In 1900 a great educational campaign was started and thousands of people all over the country began to study about tuberculosis, with the result that in 15 years there were 60,000 lives being saved annually in the United States.

"What education has done for tuberculosis, it can do for cancer."

"Cancer is among the most ancient afflictions of mankind. Descriptions of conditions now known to be cancer are found among the fragmentary records of ancient India and Persia. It was known to the Egyptians before the time of Moses and is distinctly mentioned in the Papyrus Ebers 1500 B. C. Herodotus tells us that Democedes cured Atossa, daughter of Darius, King of Persia, of a cancer of the breast, 520 B. C., while Daniel was a captive in Babylon.

During the Dark Ages, cancer was looked upon as an evidence of Divine wrath, for the ban of the church on medical as well as other scientific investigation prevented anything in the nature of research. As a result of this belief, a great wave of faith cure and quackery spread over Europe, which reached its height during and immediately following the reign of Queen Elizabeth, so that every effort to ascertain the true nature or cause of cancer was defeated.

In 1628 Harvey discovered the circulation of the blood, the lymph vessels and nodes were described by Olan in 1652 and 10 years later as the use of the microscope became more general, Malpighi saw for the first time the red blood cells, but strange as it may seem, the cells of which our bodies are composed were not discovered until 1838. Since that time we have learned a great deal about malignant diseases—millions of dollars have been spent and the brightest minds in the world have been and are still at work, but the immediate cause of cancer has not been discovered.

We know, however, that if an early cancer is completely removed, it will not return—the disease can be cured.

We know that there is a time when every cancer can be cured, for it exists first in what is known to scientific men as a "pre-cancer."

We know that cancer is first a lump or sore that "can be felt with the fingers or seen with the eyes" or gives certain definite warnings, which, if we knew how to interpret, it could be cured.

We know that nine cancers out of every ten do not cause pain in the early curable stage—this is unfortunate.

We know that cancer starts as the result of long continued irritation. If the irritation is removed, cancer will not develop.

We know that cancer develops at the edge of a scar—where a scar and normal tissue meet. If the scar is removed, the cancer will not develop.

We know that certain definite symptoms precede every cancer, just as surely as wind clouds precede a rain storm—the time is coming when these symptoms will be heeded.

In a pamphlet recently issued by the Public Health Service we are told that "there are annually 100,000 people in the United States afflicted with some form of cancer. Through ignorance or neglect, nine out of every ten cases are at present fatal. If the proper treatment were instituted early, fully half of these lives could be saved."

One woman in every eight, over 40 years of age, dies of cancer—three times as many women as men die of cancer between 45 and 55—from that age on the ratio is more nearly equal. In the United States, ten people die from some form of cancer every hour.

Estimates from the U. S. mortality reports show that about 4 per cent. of cancers are located in the mouth, 10 per cent. in the breast, 15.5 per cent. in the female generative organs and 53 per cent. in the digestive organs and in the abdomen.

We know enough to save the lives of at least 30,000 to 40,000 people annually, if we can arouse the medical profession to its duty and the people to their danger in time to take proper action.

We know that every person over 35 years of age, who is not sure about a lump, sort or unnatural discharge, should consult a competent physician and demand a thorough examination. If the first doctor consulted cannot give a rational opinion, ask for a consultation.

We know that every doctor in the state can and should prepare himself to give a reasonable safe opinion in nearly all cases.

We know that procrastination has caused the loss of many valuable lives—John B. Murphy once said, "It is the time and not the extent of the treatment that determines the final outcome of cancer."

We know that any doctor who tells you that he has a sure cure for cancer is a fraud—there is no such thing as a cancer serum or any remedy that will cure cancer by being injected into the veins or rubbed on the skin.

Some Fundamentals in World Health Work

George E. Vincent, President of the Rockefeller Foundation, believes the outlines of a world-wide campaign for health are beginning to emerge. There are working agreements among governments. The Health Committee of the League of Nations, the League of Red Cross Societies, international scientific bodies, the International Health Board are in the field. The scientific research workers in many national centers are in constant communication. Knowledge is being applied more effectively to the problems in the field, and information about methods and results is being disseminated more systematically and rapidly.

Governments are sending attachés of hygiene into each other's territories. Vital statistics on an international scale are being reported more accurately. Prompt notification of epidemics is being facilitated. Outposts against plague and other diseases are being stationed and supported. The League of Nations' Committee has organized a barrier against typhus for the protection of Western Europe and the United States.

Leaders and technical experts are in training in larger numbers and under more favorable conditions. Underlying medical training is being improved, and schools of hygiene are being established in Baltimore, Boston, London, Prague, Warsaw, Calcutta, and elsewhere.

A committee of the League of Nations is attempting to standardize internationally vaccines and sera which now vary widely in potency and purity from nation to nation and even within the same country. Popular knowledge about preventive medicine and personal hygiene is increasing. Intercommunications of many kinds are being improved and multiplied.

It is more and more evident that curative and preventive medicine are two aspects of the same thing. Emphasis shifts from care of the sick to the avoidance of sickness. The doctor of the future will be more useful as a periodic examiner and health counselor than as an emergency man called in after disease has made serious progress. Curative medicine deals with the individual patient; preventive medicine concerns itself with communities, states, nations, the world.

Public health is primarily a governmental responsibility. Private health agencies may aid governments, but should not seek to serve as substitutes for them. Private health associations may render important service in conducting experiments and demonstrations, in coöperating with public authorities, and in organizing popular support for government policies.

There is an order of importance in public-health projects. Fundamental things like sanitation and control of epidemics should not be neglected for more spectacular and emotionally appealing activities. There should be constant appraisal and readjustment of public health work in the light of world experience. Here as in every other field there is danger of waste of money and effort.

A fundamental theory to guide health policies is lacking. On the one hand extremists welcome disease and even vice as essential means of weeding out the weak and unfit. On the other, it is affirmed that all individual lives and all races are to be regarded by health organizations as equally valuable. Probably no philosophy of preventive medicine can ever be agreed upon, but the problems involved cannot be ignored. Manifold world-wide contacts and interdependencies make the health of each in some sense the concern of all.—(*Am. Jour. Pub. Health*, Aug., 1922.)

Arsphenamin Shock Phenomena.

From analysis of the literature and their own conclusive experiments on dogs and clinical experiences, E. Jeanselme and M. Pomaret accept as a settled fact that the phenol bodies in the arsphenamin series are responsible for the shock phenomena. The phenol precipitates albumin and thus induces flocculation in the blood. In the clinic and in animals, the reaction depends on the relative acidity of the solution of the drug and the speed with which it is injected. The blood of persons who have had nitritoid crises on injection of arsphenamins has always been found exceptionally acid. With a highly alkaline blood, the arsphenamin shock need not be feared; up to 0.6 gm. of arsphenamin or 0.9 gm. of neo-arsphenamin can be injected with impunity. If flakelets form, they dissolve again at once, but hypotonic alkaline blood exposes to arsphenamin shock. (*Ann. de Med.*, Paris, December, 1921.)